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ABSTRACT

This monograph describes the development of a language program for four-year-old disadvantaged boys in Northern Ireland. Various sections of the work describe the steps in devising the program: its objectives, organization, evaluations, and subsequent modifications; the problems affecting implementation, and the efforts made to overcome them; the effects of the intervention in relation to the benefits derived by the children, the teacher, and the school; and the results and the success of the program. A brief section that provides general guidelines for teachers who might wish to initiate a similar program is provided, and the work concludes with comments upon the characteristics, strategies, and tactics of implementing such an innovative program. Appendixes contain notes on the various units of the program, an outline for a typical session, suggestions regarding materials, a sample page from a lesson, and a lesson transcript. (FL)

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We are indebted to all the teachers who not only permitted us to enter their classrooms to observe activities, to assess children or to ask questions, but also volunteered assistance of various kinds.

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The contribution of the teacher with whom we worked cannot be sufficiently emphasised: we are deeply grateful for her invaluable support.

To May Weller who prepared the early typescripts and to Eithne Murray who prepared the final copy we owe a particular debt: perhaps only those who have received such expert secretarial assistance are able to appreciate fully its extent.

FOREWORD

Research reports are sometimes dismissed on the grounds that they appear to have little relevance to the daily routine of the classroom. In their account of the development and implementation of a language intervention programme for young, disadvantaged boys in a large Belfast primary school, Dr. Turner and Dr. Whyte have laid particular emphasis on classroom relevance. Their intention has not been to document a major breakthrough or to seek out novelty of contents or techniques for their own sake. Rather they have tried to show how a variety of methods, well known to experienced teachers, may be employed to achieve certain results which they consider to have benefited the children involved.

Because it was agreed that the report would be of interest to teachers the Northern Ireland Council for Educational Research has taken the unusual step of adding to its list of publications the report of a classroom experiment which was conducted independently of Council resources. We were impressed by the care with which the programme was developed, implemented and evaluated. We noted in particular how the teacher and researchers had collaborated at all stages of the work. We are pleased to commend the report to all those teachers for whom the development of language skills in young children is an abiding concern.

The Northern Ireland Council
for Educational Research

J. J. Campbell
Chairman

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1. BACKGROUND

The decision to employ a participatory strategy, making maximum use of the teacher's professional skills, is discussed in the context of some features common to successful curriculum innovations and developments.

1.1 INTRODUCTION

This monograph describes a model for curriculum change which may be employed within a single school or class. In the chapters which follow we have tried to set out the steps which we took, the methods and the reasons, and to examine the implications for teachers who may encounter comparable situations. Our endeavour has not been to provide a blueprint but rather to describe a development which, eventually, 'worked', in the hope that others may be encouraged to undertake individual innovations which are responsive to the circumstances of each unique school environment.

1.2 PREVIOUS RESEARCH

There is a vast and growing literature concerned with educational intervention programmes for four- and five-year-olds in the United States (reviewed in detail in Beller 1973; Kellaghan 1977), which has been augmented by research in Israel (Smilansky and Smilansky 1967), and, during the past few years, by studies in Britain (Chazan 1973; Woodhead 1976) and in continental Europe (Council of Europe 1974).

Investigations into the effects of such provision in the United States have found that these varied from the apparent failure of the Head Start programmes (Cicirelli *et al.* 1969) to the success of a number of highly structured programmes in achieving certain clearly defined changes in the measured cognitive abilities of the children (Beller 1973; Bronfenbrenner 1976). Congruent, although not entirely similar, results have emerged in Britain, from research initiated by the EPA Programmes

concerned with the verbal, perceptual and spatial abilities of children experiencing curricula specially introduced and structured (see, for example, Smith 1975).

The variety of approaches and orientations which have been tried is impressive, and this variety serves to give added point to any common findings or conclusions. These may be considered under three headings: personnel, curriculum content and method.

Personnel. The vital role of the teacher as the initiator and focus of classroom activity requires no restatement. However, the importance of the teacher's belief in the value of the innovation, in relation to the progress of the children, is less frequently appreciated. This point has been emphasised by Beller (1973), who reviewed the organised programmes for young, disadvantaged children in the United States and found that a variable common to all those achieving their stated objectives was staff involvement in, and enthusiasm for, the programme. Similarly, Weikart in a report on one of the Ypsilanti Projects (1967) insisted on the importance for success of complete commitment on the part of staff, while, more recently, Shore *et al.* (1971) concluded that this aspect is particularly important with disadvantaged children. Quigley (1971), considering the implementation of a language programme with young children in England, and Turner (1977), with disadvantaged pre-school children in Northern Ireland, reached similar conclusions. It is apparent that the attitudes of the teacher and the degree of his or her identification with the aims of the programme are sufficiently important to transcend major curriculum differences.

Curriculum content. There are substantial differences in what people regard as appropriate content and also in how they consider that it should be taught. However, the gradual convergence of nominally different approaches has produced a limited but generally acceptable common core of content which embraces knowledge identified as necessary for school progress but not within the cognizance of the majority of disadvantaged children on school entry. This includes such concepts as colour, size, shape, location and part-whole relation as applied to concrete objects and events. These children also lack familiarity and ease in the use of

language concerning these concepts. Most of the curricula designed for young, disadvantaged children aim to increase language proficiency. This is particularly true of the more structured programmes, most of which have assumed that the children suffer from language deficiency rather than language difference and have set out to remedy this.

The design of a language intervention programme is rightly regarded as controversial and difficult in the absence of a theoretical framework. The controversy initiated by Cazden (1966), who suggested that the language of children in various subcultural groups may be considered different but not necessarily deficient, has not been resolved. Also, there is no general agreement among psychologists or educationists upon the more general issues of language development which might guide the curriculum content for such programmes.

Method. Nonetheless, we were encouraged to work in this area by the variety of studies which testify to the effectiveness of a range of methods for increasing performance on standard measures of language competence. The majority of the successful intervention programmes employed some degree of structure (McDill, McDill and Sprehe 1969). That is, they ensured that for a greater or lesser period of the school day the children, individually or in small groups, were required to interact with the teacher, who covered a predetermined sequence of material. Thus, all of the children have similar opportunities to learn and practise language. It has been suggested (de Hirsch 1973) that young disadvantaged children are especially prone to opting out of language use when this is permitted or, at the very least, many may fail to avail of the opportunities to talk to the teacher unless actively encouraged to do so.

It is apparent, therefore, that, by sifting through a variety of American and British studies, it is possible to discover the common points (set out above) which seem to enhance the likelihood that a language programme will be effective. These may be summarised as pertaining to teacher involvement and to curriculum content and method.

1.3 AIMS OF THE PROJECT

Our work was initiated with the aims of:

(i) satisfying curiosity about the usefulness of an intervention programme in a Belfast school having some of the characteristics associated with the designation EPA;

(ii) implementing intervention in a primary school in which the class teacher would be the principal agent in furthering the programme;

(iii) examining the feasibility of employing inexpensive materials which could be found among, or devised from, those available in most primary schools.

There is little published research (especially of an evaluative nature) in the British Isles and our information is mainly derived from expensive, experimental programmes requiring specialised staff and equipment. Thus, our intention was to design a programme which, if successful, might provide useful guidelines for action elsewhere in the province.

Efficient and effective intervention programmes require thorough planning and careful monitoring based upon the systematic collection of relevant information. Planning, implementation and assessment are so closely tied to appropriate and effective teaching that it seemed sensible to ensure congruence from the outset by working within a common framework or theoretical strategy. In this way, it was hoped to avoid the difficulties in communication which may arise between teachers in the school situation and researchers with an interest in certain psychological aspects of child development. Communication barriers have emerged as an unfortunate concomitant of several American projects. In part, these originate in differences between the conceptualisations of intervention accepted by the various contributors and the problem tends to be noticed only when theoretically appealing plans encounter practical difficulties in the schools. It follows that this intervention programme was designed, modified and developed in continuous consultation with the teacher, so as to make maximum use of the teacher's own set of professional skills and experience.

This process was encouraged by the expressed need of a primary school teacher for assistance, and by the willingness of the school concerned to support innovatory techniques and to permit full evaluation for the assessment of their effectiveness.

1.4 EVALUATIVE CONSIDERATIONS

Writing in 1973, de Hirsch considered that the evaluation procedures in general use were highly unsatisfactory. She was particularly critical of the use of *post hoc* testing and the dominance of psychometric techniques. Other writers, equally critical, have focused attention on problems of design and the widespread application of inappropriate statistical techniques (Struening and Guttentag 1976).

According to Stufflebeam (1971), an evaluation should indicate, firstly, whether the objectives of the innovation have been achieved and, secondly, whether their attainment or lack of it is related to the innovation. The initial problem confronting the evaluator is, thus, the conceptualisation of outcomes and processes. Ambiguity and lack of consensus regarding aims and objectives are the characteristics of many, if not most, programmes (Milcarek and Struening 1976) and this complexity may be further compounded by variability, from one situation to another, of such magnitude that no independent variable can credibly be thought to have a comparable effect (Edwards *et al.* 1976).

We decided, therefore, to devote particular attention to the evaluation side of the project. Firstly, an ongoing evaluation was incorporated so that the children who were experiencing the language programme would be assessed on a weekly basis. This was intended to serve the dual purpose of monitoring the children's progress and of highlighting the weak points in the programme so that these might be strengthened. Secondly, the unusual step was taken of involving three control groups with which the 'programme' children could be compared. Thirdly, the programme was implemented with a 'new' group of children.

2. CONTEXT

Observation and discussion were used to assess attitudes within the school to innovations and to determine the appropriate form for the language intervention programme. Consideration was also given to the place of the innovation in the class and school context.

2.1 THE TEACHER AND THE SCHOOL

This programme arose partly from the expressed need of a teacher for assistance in stimulating language development in early primary classes. She was an experienced teacher of infant classes and had spent some years in a large primary school of mixed socio-economic intake before moving to a school of similar size but drawing its intake from a narrower and more disadvantaged background. She had worked with a range of children exhibiting a wide spectrum of linguistic and intellectual development and had some idea of what could be achieved in the early primary years, given appropriate conditions. She had been a member of a team-teaching experiment in the past. Also, she had been particularly interested in developing drama within t[illegible] school and was currently about to become involved in the introduction of the 'Breakthrough' reading scheme.

The school where she was now teaching had opened in the late 1960's and, from the beginning, had encouraged staff development and a variety of approaches to teaching, although at first resources had been very meagre. Concern was always shown for the individual child and extra attention was made available through a system of withdrawal for both weaker and brighter children where it was thought this would assist their subsequent progress through the junior section of the school. Great efforts were made to broaden the interests of the children by presenting them with a variety of leisure-time activities besides the normal primary curriculum. The school staff had participated in inservice courses over the years and some of them were currently helping to develop a new approach to religious education.

In the early 1970's the child population served by the school began to grow up. The number of entrants began to fall - at its peak there had been 120 in the reception classes each year - but, because this was deemed an area of special need, there was a certain amount of flexibility in the number of teachers allowed. The principal decided to establish a January entrance date for children who had attained their fourth birthday between the previous August and December. These children would have an extra two terms in school before entering Primary 1. It was hoped that, as a result of this form of early intervention, the children would be more prepared for the infant curriculum when the time came. Playgroup and nursery school provision in the area was negligible and opportunities for pre-school experience outside the home were not available for the majority of children on the estate. A teacher was given facilities to attend a Diploma course in Nursery Education at a College of Education prior to taking charge of this class. Her previous experience with Primary 1 classes in this school had given her an impression of a lack of readiness for infant school work in many of the children. She believed that an earlier introduction to the school environment might better prepare them.

When we became involved in 1974, she had already taken three groups of early entrants: those of January 1972, January 1973 and January 1974. After their initial two terms, each group had remained together as a unit, except that of January 1972 which had been split between two classes, and had proceeded up the school in the normal way, spending a year in Primary 1 with a different teacher and usually experiencing an annual change of teacher. The teachers who subsequently taught these early entrants all thought that they were 'well settled', that they knew about school routine, what was and was not allowed, and that they were more receptive to teaching, even in the infant years, than the children who had entered school in September and who had had little or no preschool experience before starting on the infant school curriculum. At this stage, however, is was still too early to say whether the quality of achievement of these groups was superior to that of the September entrants.

The teacher had developed a semi-traditional nursery-school curriculum for the early entrants but she was not confident that they were reaping as much benefit from their extra time as she had hoped they

might. Although she felt that language development was the key, she was uncertain of how to tackle the problem and was looking for ideas.

2.2 SCALE AND COST

Research on intervention in the late 1960's and early 1970's had largely centred on the effects of large-scale grant-aided projects. These had commonly involved numbers of existing, permanently employed professionals, plus specially engaged temporary ancillary staff. The projects were often carried out simultaneously in several educational establishments with the collaboration of different organisations and institutions and, of course, affected large numbers of children, often from very different backgrounds. Large-scale projects thus necessarily had to reckon with many variables, not all of which could be quantified or controlled, but many of which may have had important effects on the outcomes. In seeking intervention which would be fruitful, it seemed to us that a more small-scale approach which would allow in-depth investigation of a few, controllable variables might, in the long run, prove more productive in Northern Ireland and might possibly have wider application.

We had been planning the development of a pilot intervention programme which would have the following characteristics:

- it could be carried out by a normal class teacher under normal classroom conditions;
- it would involve the use of materials which were already available in the classroom or which could be easily home-made by the teacher.

Our goals were:

- to determine whether an intervention programme would be of benefit to the children concerned in the short and long term;
- to see whether such a programme could in fact be carried out by a normal class teacher without outside help or extra facilities;
- to see whether resources to implement it would be available or easily obtainable;

- to determine whether the introduction and monitoring of such a programme would have any effects in the long-term, after the end of the experimental period.

2.3 INITIAL DISCUSSIONS

Discussions were initiated with the teacher and with the principal of the school early in the term which began in September 1974. Two questions were raised:

(i) Would our assistance be acceptable for the development of a language programme?

The principal was happy with the offer of assistance. He considered that limited language experience might lie behind the low attainment of many of the children in the school and welcomed the opportunity to investigate this in an intensive way. He offered full co-operation, with access to the school and to classes for testing and evaluation procedures. He was concerned only that any proposals should be acceptable to the class teacher who would be involved and in whom he had confidence. It was understood, too, that the normal running of the school and the normal timetable of the teacher would not be interfered with.

(ii) What form should the assistance take?

It was clear that the complete programme could not be worked out in advance nor could the exact form of the assistance be predetermined by these discussions.

2.4 LAYING THE FOUNDATIONS

Further groundwork would be necessary before drawing up a tentative working schedule and putting it into practice. Information was therefore sought on:

(i) the needs of the children as expressed by the infant teachers;

(ii) methods in current use;

(iii) proposals made by the teacher;

(iv) environmental elements which already existed and could be utilised to complement a programme and help with its implementation;

(v) elements from the teacher's own experience which would be of particular help in the development and execution of the programme.

(i) *THE PERCEIVED NEEDS OF THE CHILDREN*

Teachers throughout the infant departments of the two schools in the district were interviewed informally and asked to say what, in their opinion, was the area of development in which the children needed most help. The answer was practically unanimous - language. It was less easy to narrow the topic to specific types of language behaviour or content in which particular deficiency was evident, but, when help was offered in the form of cautious questioning, the following points emerged and were later of use:

(a) the children lacked labelling vocabulary;

(b) their grammar was unorthodox;

(c) they did not listen or respond adequately to ordinary instructions in class;

(d) they did not remember what they were told.

These discussions provided a starting point for ideas of possible content in a language programme:

(a) labelling vocabulary ——→ vocabulary-building

(b) conventional grammar ——→ exposure to and practice in using grammatical speech

(c) listening and responding to instructions ——→ use of concrete situations to teach the meaning of basic everyday concepts and to provide a grid of reference for information about day-to-day matters and school matters to which they could link new knowledge

(d) memory for material taught ——→

(ii) *METHODS IN CURRENT USE*

This programme was not to be conceived and put into practice in a vacuum but in a fully functioning school with lively teachers. It was necessary to consider the methods of teaching language already in use before discussing methods which might be used in a new programme. It was

also necessary to consider the views of the teacher on the methods currently being used by her and other teachers. If she were satisfied and felt the methods were successful, she was unlikely to adapt happily to other methods; but, if she were not satisfied, there might be scope for innovation.

All the teachers were aware of the importance of language and tried to stimulate the use of language in their classrooms. They mentioned a variety of techniques:

- maintaining an informal relaxed atmosphere;
- allowing the children to chat to one another as they worked and while having milk;
- stimulating the use of language through 'news time';
- using specific objects as starting points for a discussion with the whole class;
- dealing with lacunae if the need to do so became apparent (e.g. the recognition and identification of colours);
- using language to instruct when reading, writing and number were being taught;
- reading stories regularly to the children;
- teaching them poems and rhymes;
- watching television programmes produced for that age group.

(iii) *PROPOSALS BY THE PROJECT TEACHER*

This teacher had given the problem a good deal of thought before asking for help. Although using the same approach to language in the classroom as the other teachers, she had come to the conclusion that content and methods often lacked integration and a clear relationship to objectives because:

- teachers found it difficult to formulate specific objectives in the area of language where stages were perhaps less clear-cut than in number or reading and where their training had not prepared them to do so;
- language teaching tended to be rather haphazard, with some topics being dealt with well and others equally essential never being touched on at all;

- interaction with individual children was difficult to achieve - most of the talking by the teachers tended to be in large group situations, where some children never contributed, or between individual children which might certainly be beneficial but not so stimulating as interaction with an adult model.

The teacher felt that she wanted assistance in:

- formulating objectives which would be meaningful and realistic and could be attained within a given time, say, a term;
- deciding on content which would cover important areas of knowledge and cognitive development mapped in advance in a structured sequence;
- finding a method of implementing a programme such that every child would have an equal measure of exposure to it.

At an early stage, she readily agreed that evaluation should be an intrinsic feature of any programme.

(iv) *ELEMENTS FROM WITHIN THE ENVIRONMENT*

The classroom, the equipment and the daily routine had to be considered, or at least documented, prior to formulating objectives and making decisions on methods and materials.

(a) The classroom. It was a large modern bright room with enough tables and chairs to seat all the children with plenty of open space. The teacher had accumulated equipment and worked out its deposition so that it suited her approach to teaching. The tables were arranged in groups around the room so that six or eight children could sit together. Each cluster formed an area for a certain kind of activity: Lego and construction toys in one, jigsaws in another, crayons, paper and scissors in another, pre-number activities in another. Other areas of activity were also set aside: a water tray; dry and wet sand; plasticine on a plastic-covered table; a bookstand with some chairs; painting easels and big blocks; a workbench. A blackboard covered one wall; noticeboards went round the room; there was a storeroom where extra supplies were kept and where all the materials were put at the end of the day; and a sink

with running water. Another door led to toilets, and to wash-hand basins and a drinking fountain exclusively for the use of the class. Physical conditions were excellent and the materials were well maintained.

(b) The school day. The teacher had developed a daily routine which she considered appropriate for the objectives towards which she strove. The children arrived from 9.00 to 9.15 a.m., usually accompanied by mothers or older siblings who hung the children's coats in the lobby outside and saw them to the classroom, sometimes having a word with the teacher. The children gathered in a group around the teacher; they usually sat on small chairs, or sometimes on the floor. There was roll-call, followed by administrative procedures such as collection of dinner money and sometimes other items. Then the teacher usually had a chat with the children as a group, perhaps following the religious education syllabus or doing some pre-reading or pre-number activity. From 9.30 to 10.15 a.m., the children were free to use any of the activities and the teacher circulated to help them play or to talk with them. At 10.15 a.m. the tables were cleared, usually by the teacher. Toys were tidied into the storeroom and the children sat down to have their milk. Sometimes biscuits which had been brought or bought were eaten. The teacher distributed the milk with the help of some children, supervised, wiped up spills and finished tidying up. From 10.30 to 11.00 a.m. the children joined another class while the teachers took turns to have a coffee break. During this period, stories were read, rhymes were said and sometimes there was a television programme which they watched out in the lobby. The children then returned to free play with different toys until about 11.45 a.m. when everything was tidied away once more and they had another story or quiet talking session with their teacher.

There was a certain amount of teacher-directed activity therefore and the teacher was accustomed to managing the classroom in quite a definite pattern of events in some of which she served as supervisor, and in others as leader. The pattern involved frequent changes of position, she was practically never seated at her desk, but on the move most of the time. A programme necessitating circulation among the children and around the classroom could therefore be suggested as it would be based on pre-existing patterns of behaviour.

(v) *ELEMENTS FROM THE TEACHER'S EXPERIENCE, ROLE DEFINITION AND ATTITUDES*

One of the teacher's proposals had been the formulation of objectives in the area of language. Discussion showed that she was already being guided by objectives in other areas of child development and behaviour; objectives derived from traditions of the British nursery school, relating mainly to the development of social skills through interaction with peers and the development of perceptual and motor skills through the use of selected materials. She had an additional aim, the socialisation of the children to school routine through the patterning of activities during the morning and their familiarisation with a situation where they listened and the teacher took the lead. These observations had two consequences for the development of the programme, as we concluded that:

- the teacher was accustomed to working towards specified behavioural objectives and so should not find it difficult to work towards targets in another area;
- it would not be necessary to include other than language objectives in the proposed programme as it could be planned to extend rather than to supersede the teacher's current practice.

The teacher saw herself as facilitating the children's learning through the provision of a suitable environment. This implied that she was responsible not only for deciding on the selection of activities but also for maintaining an atmosphere where learning was possible, an atmosphere of calm. The demands of the situation, as well as the general objectives as detailed in the previous section, inclined her more towards a 'managing' role than a 'stimulating' role. On entering her class, many of these children, who were barely four years old, did not know how to interact with her, or even, in some cases, with their peers, nor could they handle the materials without abusing them. In order to cope with the situation she adopted an attitude of control which could perhaps have been seen by the children as an impediment to any informal and confidential interaction which might be initiated by them.

Some of the children felt very insecure in the class environment and needed the close presence of an adult before they would attempt any

activity. She therefore had to keep quite a close eye on the whole class all the time and was perpetually torn by the difficulties inherent in this necessity. The problem, a perennial one in teaching, was how to arrange that each child had opportunities to play in each area, to learn how to handle the materials and to talk about them to her so as to benefit as much as possible from the experience. When the teacher moved about from area to area, the same cluster of children tended to follow her and she was never sure that the rest were getting as much out of the situation as they should. Keeping things going needed a good deal of activity on the teacher's part: she had to pick up, console, encourage, divert, and organise single-handed. She was very energetic and well organised so that the children were always occupied and the class quite quickly became orderly.

Although she based the content and methods of her language work on those described above, the teacher felt that these were not meeting the needs of the children. She realised that, although she tried to provide a stimulating environment, many of the children were not able to pick up the vocabulary and concepts engendered by it. She attributed this partly to their own lack of readiness and partly to the situation which made it difficult to provide interaction with adequate verbal modelling. The teacher had a good deal to do in attaining her current objectives. She was rarely able to sustain a conversation with an individual child. She could not keep track of a point she might have reached or have been striving towards with him from week to week, nor assess his particular needs in the linguistic domain. Another factor could have been her acknowledged lack of confidence in knowing how far to go in structuring a conversation; the fear that she might somehow be 'cheating' a child of this age out of developing at his own pace was very strong.

She found herself in a conflict situation, feeling that the children needed a planned and structured programme of verbal stimulation but lacking the confidence, and unable to find time, to devise one herself. Yet she felt that the children urgently needed this.

Conclusion. It was apparent that a form of assistance was required which could use, with advantage, the factors detailed above, which could be attained through minimum adjustments to the teacher's existing pattern of

activity and which would involve no lessening of the emphasis on existing operational objectives. It was clear also that the teacher concerned was highly receptive to suggestions which would help her to structure and plan language interaction with the children.

3. DECISIONS

The objectives and the time scale for the programme were agreed. Within a structured approach the teacher had control of content, sequence and methods. A pilot study was used in the selection of the test battery, which is described along with the results of the initial assessments and further design detail.

3.1 DETERMINATION OF OBJECTIVES

The objectives already in use by the teacher had been defined in terms of behaviour - social behaviour, for example. It seemed appropriate to attempt to define the objectives of a language programme in terms of language behaviour.

Language behaviour may be analysed according to the function of the behaviour, for example to initiate action, give instruction, predict or report. Within each area there could be a series of stages of development so that teachers, given guidelines about expected stages, could provide instruction and modelling behaviour which would encourage movement towards the next stage. This, in itself, would indicate appropriate content and methods and would help to draw the distinction between language use and language development.

The children were not complete beginners and some areas would not need attention. It was clear that, for example, they could already use language for different functions, so instruction in the understanding and production of simple language need not form part of a programme. Another area of language where the teacher felt that extra help was unnecessary was that of interaction and communication with peers.

The functions selected for special attention in the programme would be those which the children were thought to lack the ability to develop by themselves under normal conditions. Rather than trying to cover broad areas of functioning, an attempt was made to narrow the field to specific areas which it was felt would be of particular relevance in assisting cognitive development, upon which a programme could concentrate and in which progress could be evaluated with some precision.

A review was conducted of the literature on the development of language and communication skills in young children, with particular reference to language and communication deficits or differences in the disadvantaged. This was followed by a careful examination of language programmes which had already been tried elsewhere. Useful reviews are to be found in Bloom, Hastings and Madaus (1971) and in Lavatelli (1972). Awareness of the constraints of personnel, resources and time, and also a desire to be specific in the targets chosen, led to the pinpointing of three areas to which effort might be directed. These were the children's ability to:

- describe and understand description, including labelling objects, actions and attributes;
- relate a sequence of events and to report this;
- explain some common concepts and to use them.

3.2 SOME IMPLICATIONS OF THESE OBJECTIVES

Since language is interrelated with many other aspects of a child's development, any effort to stimulate language must take into account this interplay. Socio-emotional development, for example, may directly influence the production of language, and the stimulation of vocabulary development may have an effect on cognitive growth.

While it was felt that many of the factors conducive to good social development and to the attainment of the objectives in current use by the teacher were already present and needed no more emphasis, it was clear that some factors might need consideration in a slightly different light if they were to contribute to the attainment of the objectives in language behaviour. These were:

(i) *ACHIEVEMENT MOTIVATION*

As the children lacked eagerness and enthusiasm to use and master new language skills, these attitudes would have to be engendered and fostered. The previous demands made of the children had been mainly behavioural and social. Their motivation to achieve in this new area would, perhaps, need to be stimulated by the structured teaching and reinforcement they would receive from the programme.

(ii) *CURIOSITY*

It seemed probable that many of the children would not, at first, have the basic information or motivation to be curious; yet curiosity is essential for cognitive growth. Opportunities to foster curiosity would have to be built into the programme.

(iii) *CONFIDENCE*

The methods and content of the programme should be chosen and structured to encourage the children to express themselves and volunteer solutions to problems once they had been given basic information. In this way it might be possible to promote each child's self-confidence and facilitate the emergence of creative abilities.

Similarly, the content chosen to achieve the objectives in language behaviour could influence cognitive growth. For example, familiarisation with concrete objects could contribute to physical knowledge, eventually enabling the child to predict the results of his actions. Use of the same objects in other ways could lead, in addition, to the acquisition of elementary logical thought, including classification, seriation, numerical construction, and the structuring of space and time. We were all very aware of the necessity to choose the areas of content with care and fully appreciated the importance of utilising and building upon what the children already knew, if the emphasis upon language development was to make a meaningful contribution to the children's later school progress.

3.3 THE QUESTION OF STRUCTURE

Language programmes reported in the literature fall into one of three groups:

- highly structured, where the action is teacher-initiated, teacher directed and sequenced to meet certain specified needs of disadvantaged children;
- outwardly unstructured, where the activity is child-initiated, though there may be rules governing behaviour and the use of materials, and the selection of activities available may have been carefully made by the teacher;

- some programmes have elements of both these extremes.

The situation in which this project was initiated indicated that a structured programme would be needed and welcomed.

Structured programmes already reported in the literature seemed to fall .nto three groups, which may be exemplified by reference to a prominent exponent of each: the Bereiter and Englemann approach, though giving attention to other aspects of language, lays considerable stress on the acquisition of grammatical forms; the Peabody Kit uses special materials to cover language and cognitive development in a systematic way; with the Marion Blank approach, the teacher, in a one-to-one situation, directs the child's progress along carefully specified lines, using child-initiated conversations where possible. The first two types of approach leave very little to the initiative of the teacher; in fact she can make little contribution from her own experience to the programmes as they come 'packaged'. For this reason they have not been widely accepted in the British Isles and it was not judged that either would be appropriate in the current project. A more adaptable, teacher-controlled approach was therefore decided upon.

The teacher would be given an outline of the agreed content with which it was proposed to attain the objectives, suggestions as to methods and materials she might use, based on those already current in her classroom, and criteria to judge how much progress was being made. However, she would be left to choose the sequence of activities and the selection of items for herself, as well as the techniques she would use.

3.4 DURATION

It was eventually decided to plan a programme which could be covered in ten weeks. It could thus be completed within a term, even making allowances for days lost for different reasons; the danger of children's dropping out would be minimised, as would that of 'new' children's joining in after it had begun. It should not be so long as to seem endless to the teacher but it would be long enough for measurable differences to be produced.

Each week would be called a unit and each unit would have a central theme. Objectives related to this theme would be specified. Five daily sessions were allowed for each unit and the teacher could divide the material as she wished between the sessions.

3.5 EVALUATION

In order to assess whether the weekly objectives were realistic, and how the children were progressing in terms of language behaviour, the performance of a random sample of children was to be evaluated each week. This was to be done by one of the authors (J.W.) and the results then discussed with the teacher so that adjustments could be made to the programme for the following week in accordance with the findings.

General cognitive development would be assessed by a battery of tests before and after the administration of the programme. The tests were selected after a pilot run with a sample of similar children at a different school to whom the following tests were administered: Draw-a-Man; Watts Language Test; English Picture Vocabulary Test (EPVT); Reynell Test; Illinois Test of Psycholinguistic Abilities (ITPA); Stanford-Binet Intelligence Scale; Wechsler Pre-school and Primary Scale of Intelligence (WPPSI); Columbia Test of Mental Maturity; Boehm Test of Basic Concepts (BTBC); Tell-a-Story. The means, medians, range of scores and standard deviations which were obtained were considered and a correlation matrix was calculated. On this basis, the following tests were chosen for the project, as they seemed to tap different areas of functioning:

Draw-A-Man (Harris 1963). The child is asked to draw, freehand, a picture of a man or woman. The scores give an indication of mental age.

Watts Language Test (1944). This consists of six sets of pictures which require increasingly complex descriptions ranging from Stage I (a person or animal performing an action, for example a boy running) to Stage VI (for example a boy looking at a bubble which he has blown). It may be regarded as a measure of a child's progress in mastering basic variations of the English language.

English Picture Vocabulary Test (1968). The preschool version was used. The child is asked to select from a display of four pictures the one which corresponds to a spoken word. The test is a measure of listening vocabulary and may be described as providing an indication of the child's level of semantic reference.

Illinois Test of Psycholinguistic Ability (1968). Only the Verbal Expression Subtest was given. The child is asked to describe four objects and is first given a practice trial. The objects are concrete and the child is allowed to handle them. This test gives an estimate of the level of verbal production, descriptive ability and physical knowledge.

Wechsler Pre-school and Primary Scale of Intelligence (1971). This is the downward extension of the Wechsler Intelligence Scale for Children (WISC) and consists of ten subtests. Subtests of Information, Vocabulary, Arithmetic, Similarities and Comprehension yield a Verbal Score, while the subtests Animal House, Picture Completion, Mazes, Geometric Design and Block Design yield a Performance Score. A Full-scale Score is also obtained which provides an Intelligence Quotient.

Boehm Test of Basic Concepts (1971). This consists of 50 items, divided into two books. Each item illustrates a common concept and is accompanied by three distractors. The examiner asks the child to point to, or mark, the picture showing the concept he names, for example, 'on top of', 'next to', 'inside'. Concepts of seriation, classification, number, time and space are included.

Tell-a-Story. In order to assess the children's ability to use language, a Tell-a-Story test was devised. The results obtained from the Draw-a-Man Test, the Watts Language Test and the Tell-a-Story Measure are not reported here; as the information which they provided was generally consistent with that obtained from the other measures, it has been omitted in the interests of compression.

3.6 DESIGN

(i) *EXPERIMENTAL GROUPS*

In order to provide a check on the efficacy of the programme, it was agreed that it would be used twice with a group of early entrants (those of January 1975) over two terms (i.e. two 'runs') and then again with a new group of children (those who entered in September 1975) for just one term. This would provide information on:

- the general efficacy of the programme;
- whether two terms' experience was more effective than that of a single term, either immediately or thereafter;
- the teacher's reactions to the programme over time.

Assessment would take place on entering school for both groups and post-programme assessment would be two terms later. A third evaluation of the progress of the January entrants would be made after a further two terms and assessment would then take place annually.

(ii) *CONTROL GROUPS*

As has been stated above, January entrants had been a feature of the school for the previous three years. Each group had been taken by this teacher in the two terms before they entered Primary 1. Annual evaluations of the progress of the children who had entered in January 1974 and in January 1973 would provide results which could later be compared with those of the 'programme' children. The timetable is summarised in Table 1. The two earlier groups, currently in Primary 1 and Primary 2, would be tested in March 1975 and annually thereafter. Similarly, the children who had entered school and the class of this teacher in September 1974 would form a control group for the second group of 'programme' children who would enter in September 1975.

Table 1: *Treatments and Psychometric Evaluation Timetable*[1]

Children's date of school entry	January 1975	January 1974	January 1973	September 1975	September 1974
Status	Experimental Group I	Comparison Group I	Comparison Group II	Experimental Group II	Comparison Group III
Programme experience	Two terms	None*	None*	One term	None**
School class level when tested:					
Pre-programme	1975			1975	
Post-programme	1975			1976***	
Primary 1	1976	1975		1976***	1975
Primary 2	1977	1976	1975	1977	1976
Primary 3	1978	1977	1976	1978	1977
Primary 4	-	1978	1977	-	1978
Primary 5	-	-	1978	-	-

[1] This is continuing: table prepared 1978. Data presented in Chapter 7 give results up to and including 1977.

* On entry to school, two terms' experience in the reception class with the programme teacher.
** On entry to school, one term's experience in the reception class with the programme teacher.
*** Same occasion: see text.

(iii) *THE SAMPLE*

Programme Group I was expected to enter school in January 1975. Parents could register beforehand their wish to have their child enrolled or they could simply turn up on the day. Age was the only criterion for entry. The possibility of the implementation of the programme was not mentioned in case it might have some effect on the enrolment and bias the results.

Number. Twenty-four boys were enrolled. They came in groups of six, at intervals of two days. There were no obvious physical handicaps. One child had a severe speech defect and, although he was tested, he was not included in the final sample on which the results were based. He remained in the class, however, and participated in the programme and in the other class activities. Another child changed schools early in the first term. The final sample contained twenty-two children. They attended school only in the mornings.

Age. The ages ranged from 4.0 to 4.4 years with a mean of 4.26.

Programme Group II entered school in September 1975. There were three Primary 1 teachers, including the teacher involved in the programme. Children were allocated in order of registration and so that there was an even spread by age in each class.

Number. Eighteen boys were enrolled. They were with the teacher in the mornings and were divided between the other two classes in the afternoons for the first term. At Christmas the class was divided. Six remained with the teacher, as the January intake was less than in the previous year, and six went to each of the other Primary 1 classes.

Age. Sixteen of the children were in the age range from 4.0 to 4.5 years but there was one child of 5.0 and one of 5.1. The mean age was 4.37.

(iv) *SETTLING IN AT SCHOOL*

Most children were accompanied by their mothers who were allowed to stay for a while if the children showed reluctance to leave them. There was an extra teacher in the room during the first week. No structured

interaction was planned by the teacher at this stage. The children were encouraged to discover the toys and play with them.

(v) *INITIAL TESTING*

Testing was begun with individual children the following week. Many of the children seemed to be unused to answering questions and needed a good deal of coaxing (where permitted by the test norms) before they would say anything at all. Their concentration was very limited and some appeared very apprehensive so that only one test was administered in any one session. The Boehm and the WPPSI were both administered over two sessions. Testing was carried out in a corner of the classroom. Some children, however, became attached to the territory where they had become established on first entering the classroom and would not move, so they were tested wherever they happened to be sitting.

3.7 INITIAL TEST RESULTS

Programme Group I - January Entrants

English Picture Vocabulary Scale: The preschool version was used and these results indicate that the children were within the normal range but towards the lower end of the scale. The mean score was 93.2 and the standard deviation was 10.48.

Illinois Test of Psycholinguistic Abilities: Only the verbal expression subtest was used and this indicates that the children's performance was somewhat inadequate with a 'psycholinguistic age' of 3.4. The mean score was 31.6 and the standard deviation was 5.59.

Wechsler Pre-school and Primary Scale of Intelligence. A discrepancy was found between the verbal and performance subscales which supported the teacher's view that attention should be directed principally towards the former. The mean on the verbal subscale was 82.4 with a standard deviation of 12.40. The mean on the performance subscale was 88.4 with a

standard deviation of 11.48. The full-scale scores placed the average just below the normal range with a mean of 83.7 and a standard deviation of 10.75.

Boehm Test of Basic Concepts: The overall mean raw score indicated that the majority of the children were not clear about the meaning of the majority of the concepts. The mean was 16.3 and the standard deviation was 6.60. Apparently, the concepts in Book I were possessed by an average of 49 per cent, whereas those in Book II were passed by only 25 per cent of the children.

The concepts may be grouped as concerning space, quantity, time or as miscellaneous. When these were examined it was found that on average 41 per cent of the children clearly possessed the 'space' concepts, 28 per cent the 'quantity' concepts, and 16 per cent the 'time' concepts. Only 17.4 per cent demonstrated a knowledge of the common concepts in the general or miscellaneous category.

All of the concepts included in this test might be encountered in the normal Primary 1 classroom where teachers may reasonably expect them to be understood by the majority of children. It is possible that the results are to some extent in error because of guessing by the children or because the representation of the concepts in pictorial form was new to them. Nonetheless, this test gave valuable indications of lacunae relevant to a programme of language development.

Programme Group II - September Entrants

These results are set out in Table 2. They are very similar to those of Programme Group I.

Table 2: *Programme Group II - Initial Test Results*

	EPVT	ITPA VE	V	WPPSI P	FS	BTBC
Mean	99.80	27.30	86.40	89.20	87.30	21.00
S.D.	8.50	2.10	11.98	9.43	10.65	4.00

While none of these tests provided an explicit measurement of the children's ability to describe, all but the EPVT could be seen as reflecting the child's understanding of description or of ability to narrate, and so are useful indicators of any effects achieved by a programme aimed specifically at these aspects of language. The EPVT, by providing a measure of listening vocabulary, and the BTBC, by its concentration upon the understanding of common concepts, give useful additional information.

4. IMPLEMENTATION

Decisions were made about grouping, seating, timing and materials. Notes were prepared and the teacher began to execute the programme. Some of the earlier decisions were reconsidered and the programme was modified in scope and presentation.

4.1 ORGANISATIONAL MATTERS

GROUPING

In order to attain the objectives previously set out, it was decided that the children should be divided into groups of five or six. The composition of the groups was decided arbitrarily by the teacher in the first instance. She had no prior information about the abilities or attainments of the children but she usually discovered from the mothers:

- whether the child had attended nursery school or playgroup;
- whether they had any siblings at the school.

In some cases, older siblings had been in her class in an earlier year. The groups formed were found to be mixed with regard to ability and also with regard to playgroup/nursery school attendance or lack of it.

TIMING

Initially, it was agreed that each group was to be with the teacher for 15 minutes each morning. The teacher was free to decide the order in which she would see them and also how she would structure the day. She could decide to complete the programme session first, or to spread it over the morning, alternating it with other activities if she wished. The only requirement was that every group should have a daily programme session with her.

MATERIALS

Materials were to be specified in the programme and were already available or easily provided in the classroom. It was expected that the children would be more attentive where concrete objects, or even photographs or pictures, were used than if the talking were without tangible reference points and, in accordance with recommended practice for this age group, efforts were made to include some of these in every session.

TEACHER BRIEFING

When the objectives and their implications had been discussed, typewritten notes based on these discussions were prepared, before the programme was due to begin. The notes contained:

- reminders of the stages expected as progress was made towards the objectives; these were intended to help the teacher to structure the content and to choose appropriate methods;
- a list of the unit themes which had been selected for the programme*;
- details of the objectives and suggested activities for the first unit *(see Appendix Ia)*;
- an outline of a possible session *(see Appendix Ib)*;
- suggestions on materials which might be used for the first unit *(see Appendix Ic)*.

4.2 EARLY PROBLEMS FOR THE TEACHER

The first unit was introduced in the third week of term. The children had been given just over a week to settle in. The testing schedule was not yet completed but it was clear that it would have to continue concurrently with the programme if the programme were to run for its allotted time. One researcher (J.W.) remained in the classroom for all of each morning to conduct the testing while the teacher started with

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* These were: the child, the classroom, shapes, sounds, clothes, food, fruit and vegetables, the day's activities, activities in school, zoo animals.

the first unit and integrated the new programme with the rest of the morning's activities. Various advantages of this procedure became apparent. Because of the researcher's presence, problems which had unwittingly been built into the programme, and which could easily have made it unworkable, were observed, discussed and dealt with immediately, and others, which might have been solved in an unrecorded way by the teacher, were noted at once, and suggestions made by the teacher were discussed, utilised and written into the programme.

(i) *MANPOWER*

Although one of the aims of the project had been to produce a programme which could be used by a normal teacher in a normal classroom, it became obvious at a very early stage that, with such young children, no structured programme could be administered without the presence of a second adult. This was due partly to the unsocialised state of the children so early in the term and partly to the teacher's perception of her own role as manager. It was agreed that the situation would be eased if one of the authors (J.W.) stayed in the classroom during the period of the day when the programme was being implemented and if she acted in a supervisory role, for example, mopping up, separating belligerents, distributing materials or coping with the painting corner.

(ii) *GROUPING*

Problems had not been envisaged here and mixed ability/mixed experience groups had been established. Reports on other programmes had not highlighted this aspect, indicating by default that it was not an area for concern - at least to the researchers. However, our children were proving hard to 'settle'. It had not been anticipated that they would have had no previous experience of working in a group and that the social norms governing session participation would have to be inculcated by the teacher in addition to the completion of the programme. It was not only that the children could not sit quietly and listen even when in a small group but also that they did not seem to know what was expected of them. It could be that the content of the programme was not interesting enough

for them at this stage but another possible reason for the difficulties was found by observing the participation rates of different children in the groups. When these were related to some of the test results which were slowly becoming available, it was confirmed that it was the 'quicker' children who tended to know all the answers, and that they answered regardless of who was being asked. They also asked all the questions, regardless of whose turn it was. The others either refused steadfastly to answer at all, or else went off on a different tack altogether. If the teacher took time to try and persaude them to respond, or to listen, the quicker ones became distracted or interrupted or sometimes wandered off. If the teacher tried to keep going on with the quicker ones, the others fell further and further behind. If she went at a pace suitable for the slower ones, the others became bored and showed it.

By the end of the week the children had been tested on the EPVT and the groups were rearranged on the basis of the scores in the test. This amounted to ability grouping and turned out to be a far more satisfactory arrangement for the teacher. Although some problems arose with regard to the time spent with each group, this form of grouping was maintained, with only slight modification made later on the basis of attendance, for the duration of the programme.

(iii) *SEATING ARRANGEMENTS*

No specific guidance had been felt necessary here. Different arrangements were tried. At first, all the children in the group were seated around a circular formica covered table, about five feet in diameter, normally used for plasticine or playdough. The children sat on small chairs and the teacher on a normal chair. In this way she could keep an eye on the rest of the class at the same time. But because the circular table was in the middle of the room, other children tended to come around too and take part in the proceedings, and they could stand far enough away from the teacher to be out of reach, and yet be such a nuisance that it was very frustrating. The children who were supposed to be participating were also distracted.

The next arrangement tried was to have the children at the side of the room grouped around two rectangular tables set end to end. The

teacher was again on a higher chair. While, with this arrangement, there was not so much disturbance from other children, those participating in the programme session were in some cases so far away from the teacher that they could not hear each other above the background noise.

If a single rectangular table was used, with a whole group sitting on little chairs, they were very cramped, and, naturally, tended to get tangled up with one another, with chairs crashing to the ground frequently. Yet, the teacher required the table for materials or demonstrations.

The best, and final, arrangement tried was the 'traditional' one: to have the children standing around the teacher's desk. In this way they were all at the same height; their heads and the teacher's were fairly close together; the nuisance of chairs falling over was eliminated; children could change places easily; the children were kept perhaps a little more alert; and they had their backs to the rest of the class. The teacher had her working surface at a more comfortable height and was closer to her base when emissaries came from outside. The teacher was high enough to see the rest of the class and feel at ease about supervision.

(iv) *TIMING*

The decision to spend 15 minutes on the programme daily with each group had been made from consideration of the probable attention span of the children and with the intention of not encroaching too much on the other activities which the teacher might wish to initiate with the children. It was understood from the objectives and the material which was proposed for the week that the 15 minutes should be active and intensive. In practice, in order to get 15 minutes of real work, groups often spent more than that length of time with the teacher. This was her own decision, made with the intention of carrying out the spirit of the programme.

This eventuality had not been foreseen from the pattern of the teacher's activity previously observed. In practice, most teachers allow for 'wastage' time in any instructional period, probably unconsciously.

It had not been taken into account when drawing up the programme and, as a consequence, the programme sessions tended to go on all through the morning.

Some of the effects of this were serious:

(a) the teacher was more tired than she might otherwise have been, as the strain of the sessions was spread over the whole morning;

(b) the final group of children to be taken was not very receptive, as both they and the teacher were tired;

(c) the teacher was not able to spend time on other activities with the children.

4.3 REMEDIES

The first step in remedying these difficulties was suggested by the teacher: that she should begin the programme first thing in the morning when the children seemed fresher. This meant that three groups could be finished by milk time (10.15 a.m.) if there were no delays. It was then proposed that the teacher should stop when 15 minutes were up, no matter how little had been covered, just to see how this would work. If she varied the order in which groups were taken daily, each group would have a similar chance of covering the material.

One discovery here was that with the 'good' groups the teacher found herself over-running the time. She explained that when the children were responsive she wished to continue. It meant, unfortunately in this case, that, unless the time limit was adhered to, the poorer groups got less attention in the rush towards the end of the day.

4.4 RETROSPECT ON THE FIRST WEEK

Coping with what seems, in retrospect, to have been an enormous mass of material *(see Appendices Ia, Ib, Ic)* the teacher had applied her usual teaching methods. The results were disappointing to her. The children did not seem to respond. They were very passive, did not

initiate interaction on the theme, and were not very interested in the proceedings. We looked at the material again. Perhaps it was too complex or too abstract? After discussion, the following points emerged:

(i) The teacher had difficulties introducing a subject 'from cold' instead of one which came up naturally (as would have been her normal mode of beginning a subject). We looked at the kinds of concrete materials and pictures we had and tried to find ways of making the introduction more natural.

(ii) She also felt it went very much against her training and experience to go on to a new item of knowledge when she felt the previous one had not been fully grasped by the children. This meant that each day she spent a good deal of time revising what had been done the previous day and little progress through the material was made. She wondered whether, by doing this, she was in conflict with some of the objectives of the programme. New objectives and old methods were not 'meshing'. An approach was needed which would emphasise the stimulation of learning in the children rather than 'teaching' by the teacher. This was supported by our next finding.

(iii) The teacher considered that the children were not being motivated to try hard enough. In attempting to select from the various elements and to structure as she went along, she was so preoccupied that encouraging the children's responses in the language session was far from being a priority.

(iv) Activities suggested to employ the concepts taught proved impossible to implement with each group in the short time available in each session. It was decided to concentrate more on talking, and less on doing, during the sessions.

(v) Follow-up activities suggested for use after the sessions were also impracticable at this stage. There was no time when the teacher could supervise such activities during this first week, as the programme was taking every minute she had. Organising and checking little projects

like those suggested might have been possible were even five children involved, but absolutely not for twenty-two.

(vi) Telling a story during the programme session was also out of the question. Again, there simply was not enough time. However, it was hoped that the normal storytime in the day's routine could be used to further the aims of the programme by selecting a story which would be relevant to the general theme of the unit, and by encouraging the children to be active rather than passive listeners. But our class was joined by another class during this period and their teacher was in charge for some of the time. Since this class was one of the control groups, the objectives, content and methods of the programme could not be described to the teacher for fear of contaminating effects. Encouraging participation, while limiting it to only her own class was difficult for the teacher involved in the programme, and while the stories she chose were frequently relevant to the theme of the unit, it was not feasible to suggest such stories to the other teacher, who had her own 'themes' to consider. In any case, the use of stories to reiterate the unit content would depend on the teacher's knowledge of the content and the aspects of it which might need emphasis. On the practical side, it was difficult to see how one could organise meaningful participation by a group of 54 four- and five-year-olds in an orderly way. Later in the term, when the teacher had more time, she made a point of having an extra story session with her own group, in which she encouraged participation and sustained attention. Stories specially written for the programme provided additional ideas.

In summary, the teacher's impressions after the first unit were that:

(a) there was far too much material;

(b) the objectives for the week were too general;

(c) the problems had been so time-consuming that she had found it difficult to:
- cover the same material with each group;
- spend the same amount of time with each group;

- select elements from the suggestions made and combine them in structured interaction aimed towards the objectives.

It was agreed that the first unit should be re-written and given another trial the following week.

4.5 UNIT I - VERSION II

This version differed from the previous one in these respects:

- objectives were more precisely specified;
- extra, and different, suggestions were given for dealing with quicker and slower children.

Content, methods, materials and activities were left as above. This version was implemented during the second week and is shown in *Appendix II*. It was clear, however, that it was still not in a form which made it easy for the teacher to abstract the principles and apply them without strain.

It was specific only in relation to objectives. The teacher still had to select which content and methods to use with each group during each session. A system of record keeping was included so that the teacher could note which items she had used with which groups, and rate their success. But this proved too time-consuming and had to be adandoned. In this second week, evaluation of the unit as a whole was proving impossible as different parts had been done for different lengths of time. The system was also making far too many demands on the teacher, in terms of the organisation and presentation of the material. Trying to assimilate the material was in itself a challenge; structuring and presenting it for use at different levels of different functions of language was very difficult to do on the spot, while keeping the attention of the children. Because of her anxiety to put the programme into effect the teacher began to feel insecure in her ability to apply the principles which she had helped to work out.

At her request it was agreed that a briefing which would give more details of the sequencing and structuring of teacher-children interaction should be drawn up. She considered that she would then feel more secure in selecting techniques.

An initial decision to give details would not have been acceptable but, in the light of experience, the decision to give an outline instead of details was reversed.

4.6 UNIT II - VERSION III

Unit II was rewritten and implemented according to the suggestions made above. A briefing was devised with a new format, consisting of three pages or so for each unit, typed on one side.

The first page contained the specific objectives for the week, which involved vocabulary, concepts, number and a colour. Headings were included which invited the teacher to write the names of any children absent for more than two days; to note the stories and rhymes used during the week; and to add comments. Space was provided for these purposes. An example is provided in *Appendix III*.

The second and third pages introduced a day-by-day breakdown of the unit. Vocabulary and concepts from the objectives were presented in an imitation conversation between teacher and children, which included reminders about revision, reinforcement and encouragement of participation by the children. Stories were suggested and some books provided. Materials were listed for each session *(see Appendix IV)*.

IMPLEMENTATION AND FEEDBACK

In implementing this version the teacher simply followed the text, keeping it before her. But while she used the written text as a guide, the teacher now had the opportunity to take into account the reactions of the children. This was important as it helped her in deciding where to place emphases, which sections needed expansion and which could be gone through quickly. Examples were given of ways in which concepts might be introduced and their use practised, using concrete materials at first and

progressing later to more abstract contexts. In this particular unit only the simpler levels of description, narration and explanation were dealt with, and concepts were introduced in accordance with the different stages indicated in the previous briefing.

TIMING

During the first day it was noted that timing might still prove to be a problem and it was agreed that the teacher should stop after 15 minutes, no matter how far the group had progressed with the material for that session. The teacher recorded the number of the group opposite each objective she felt she had worked towards with them; she also noted how far she had got in each session with each group. At the end of the week anything important that had been omitted was worked into the material for the following unit.

AMOUNT OF MATERIAL

The teacher still felt that there was too much material in some sessions. This made it difficult for her to get through it with the children so that both she and they would be satisfied. It was hoped to mitigate this by more stringent timing. The amount of material per session was cut down even more in the light of these findings.

APPEAL OF MATERIAL

The teacher thought that some of the content in this unit - 'The Classroom' - was too abstract for the children. She also felt quite strongly that she would perhaps be better occupied circulating among the children and helping them to play with the various items of equipment. She suggested that, while she was sitting and trying to talk to some of them, the rest were deriving little or no benefit from the available activities. She agreed, however, that all the children needed systematic help in expressive language and further modifications to the programme were discussed.

MODIFICATIONS

This unit was not repeated immediately but, on the second run of the programme with the same group, it was rewritten to include less material about furniture and fittings. Also some different material, selected as more relevant to the children's interests, was included concerning some of the activities. This was much more acceptable, as it met the teacher's wish to help the children with their play and did so in a structured way.

PARTICIPATION BY THE CHILDREN

With this version it became apparent that there was a need to build in more participation by the children and to foster their ability to contribute. This would enhance their achievement motivation and might encourage the development of creativity. Simply *answering* questions on what they had been shown or taught was not enough; they needed also to learn how to *ask* questions. A balance had to be struck between activities which would require inordinate time and effort and no activities at all. Various techniques were suggested, tried, retained or discarded. Those which proved effective were not necessarily the most novel.

One of the solutions devised at this time was first used with the unit on 'Shapes'. When the notion of 'round' had been taught through the various stages and was being revised, the teacher asked *each* child in the group to think of something, not necessarily in the room, which was round and which he would name for her. She then drew the named object, or found an illustration of it, and wrote beside it, for example, 'We found round things. John found a plate'. The posters resulting from this activity were pinned on the wall for the duration of the unit.

Another example, subsequently used many times with different subject matter, was an adaptation of 'Twenty Questions'. The teacher, having thought of an object, gave clues to help in the formulation of questions ('Ask me if it's red') until the time came when the children could devise all the questions for themselves. Then, we tried giving the children a turn at being leader. This was very difficult for some groups and did not work for the slower groups at all, although the others eventually did it successfully.

Some small way of involving the children and of ensuring that they knew their contribution was valued was built into each succeeding unit. Situational variables meant that, in practice, they had little individual contact with the teacher, except when in the programme sessions. Like all young children, they obviously craved appreciation of their efforts and they would wait patiently for many minutes until someone had time to admire their finished product before feeling motivated to continue. An extra person was needed as much for this 'appreciation' role as for the mechanical tasks. In this introductory phase of the children's school career, their attitudes towards education and learning generally were possibly at a critical stage of formation and their experiences now, both educational and emotional, could conceivably influence their later attitudes and attainments.

4.7 AN AGREED PATTERN

The remaining units all followed the same pattern. Where vocabulary was being introduced children were to be shown which attributes they should perceive and how to label these attributes. They were to be helped to group objects and to decide criteria of sameness and difference. In presenting concepts, examples were given, for the teacher, of how to introduce a concept, how to build knowledge of it through comprehension to expression, using concrete materials, *(Appendix IV)*, pictures, and finally just words without illustrations *(Appendix VI)*.

Numbers were introduced gradually, and a new colour was incorporated each week using the same sequence of activities.

MATERIALS

Some of the materials were available in the classroom, although the shortcomings of much commercial material became obvious when an attempt was made to use it for cognitive development in an active way. For example, in many sets, individual objects differed along more than one dimension, which made it difficult to use them for teaching simple classification, or for matching and grouping at basic levels. Materials were

made by one of the authors (J.W.) to illustrate the content laid down in the programme. A collection of 'pairs' and 'non-pairs' was compiled, for example, and illustrations of concepts (pictures cut from magazines) accompanied questions to ask the children in order to consolidate their knowledge and sharpen their perception of relevant aspects.

PROGRESS

When the teacher had used Version III of Units II and III, she appeared to find the situation much more acceptable. A slight change in the routine of the day made the accommodation of the programme sessions much easier. Instead of the children's milk time occurring at 10.15 a.m., this was left until after 11.00 a.m. when they returned from storytime with the other class, or from television. This meant that sometimes all the groups could be fitted in before the break at 10.30 a.m., and usually three of them were seen before then. It also meant that the children were more quickly settled on returning to the classroom as there was a set activity, instead of free choice.

During the first term, as the children seemed to benefit *(see transcript of Session 3, Unit VIII, in Appendix VI)*, the teacher became interested in discovering more about the techniques being suggested in the programme. She borrowed several publications about preschool education and language development, including some by Marion Blank, Gahagan and Gahagan, Joan Tough, Helen Quigley, Lavatelli, and a scheme for promoting language in poor communicators drawn up by a school board in Wellesley, Massachusetts. In all of these, the emphasis is on stimulation rather than on 'management' and it is possible that they strengthened the teacher's feeling, as expressed originally, that she *should* be fostering language development.

As the programme progressed, the teacher became more relaxed, began to bring in materials herself and to find occasions with the whole class to emphasise aspects of the current unit. For example, the units of Food and Clothes included real food and clothes and the children's appreciation of this was obvious. A story had also been included on making soup with the vegetables which had been introduced during the unit. The teacher took the opportunity to make soup with the class, and turn the

story into action. This was such a success that action was included as far as possible from then on, as well as the use of concrete materials.

Opportunities for frequent revision of material taught during previous units, and for pulling this together, were built into the programme. The weekly evaluations were especially useful in showing up areas where more work was needed, especially with the slower groups, so that this could be incorporated in later sessions. Stories told to the class as a whole proved especially useful for integrating and revising unit work. Storytime became more integrated with the theme of the unit as short illustrated stories (after Ridout) were provided, with ideas also from the MacDonald Zero books, home-drawn. The titles were: *Susan's House, David's Picture, David gets Dressed, David gets Ready for Bed, David goes Shopping, David makes Buns, David's Mummy makes Soup.* Each booklet had a clear sequence of actions and was intended to help develop the 'narrative' function of language. Activities and questions were built into the text so that the children would be encouraged to pay attention and to participate. This approach to story-telling was used also for other stories chosen by the teacher for storytime. More pauses, more participation, and an increasingly appropriate selection of material seemed to ensue.

MANPOWER

Meanwhile, one of the authors (J.W.) still stayed in the classroom, conducting assessment and evaluation procedures and keeping an eye on the rest of the class when the teacher was conducting the small group sessions. While far from ideal, this compromise did ensure the presence of an extra pair of eyes and hands in the room, and it was hoped that it may also have eased part of the strain on the teacher.

4.8 VERSION IV

Version III was implemented fully with the January entrants. Notes were kept and these were taken into account when the programme was re-run with the same group after Easter. The programme was then written out again, with some further minor modifications, for use with the September entrants.

The format was again a detailed one. Each unit covered three pages:

- specific objectives for the week as in Version III. A list of the materials which would be needed. Space for comments. Follow-up suggestions (four or five for each unit);
- Detailed layout of procedure for each day. Objectives and materials to be used were listed by session, with notes on revision, etc. Appropriate stories were also suggested.

Materials, methods and content were much as before, although the amount prescribed was reduced (*compare Session 1 of Unit III, Version III in Appendix IV with the same session of the same Unit, Version IV in Appendix V*). The order of the units was also altered slightly, as the teacher thought that starting with the classroom and its activities would be more relevant and less threatening to the children than starting by asking them about themselves.

COMMENTS

There were no problems this time with grouping or timing. This was partly because there were fewer in the class - just eighteen. Divided into three groups by ability, their programme sessions were easily fitted in between 9.30 and 10.30 a.m., though not usually with any time to spare.

The appropriate, accumulated materials were employed and the teacher again followed the text, which indicated methods of ensuring the children's participation and reinforcement.

Manpower was a potential problem. The teacher felt unable to carry out the programme without an extra person, because of the management aspect of her role. One of the authors (J.W.) once again stayed in the classroom, but this time, when the initial testing of the children was completed, just for an hour each morning.

Having become accustomed to the content and methods of the programme, the teacher had energy to devote to other aspects of the children's activities and introduced some other changes in the daily routine. The

children not having a programme session with her now remained in their groups until 10.30 each morning. Each group spent 15 minutes at one kind of activity, the jigsaw and crayoning corner for example, and then moved over to the pre-number corner. She had prepared a scheme of activities in the latter area, and a check was to be kept that each child progressed through the scheme. The jigsaws too were graded and the children followed a sequence methodically, either with partners or by themselves.

While the teacher was by now highly conversant with the programme, another problem resulted from this fluency - staleness. She herself was getting bored with the material. This was understandable, since she had given each session eight times already and now had to do each one a further three times. She was persuaded to follow the format for this last group to permit comparisons with the previous group and it was understood that she could then adapt the material in any way she wished.

5. INNOVATIONS WHICH PROVED DIFFICULT OR IMPRACTICAL

Some suggested innovations which proved impractical because of organisational difficulty or too radical departure from the teacher's current practice were eliminated from the programme.

Not all the modifications which were suggested were tried out or written into the final version of the programme. This was the case especially for some of the ideas proposed by the authors, which had seemed at the time to meet obvious needs in the situation; some of these were welcomed by the teacher but in practice found not to be workable. Some were adapted and partly used; others were tried and then abandoned, or in some cases the aims of the innovation were found to be unrealistic and had to be modified. A few of these are presented here as illustrations of important and of trivial discords.

5.1 PARENTAL PARTICIPATION

The question of parental participation was considered as a means of furthering the aims of the programme. The possibility was examined of explaining the basic principles to the parents and telling them which themes were to be followed each week so that they could provide further encouragement in the home. Research elsewhere (summarised, for example, by Bronfenbrenner 1976) had indicated that parental involvement in a language programme contributes not only to the immediate progress of the children but also increased the duration of the benefits. However, it was clear that such an expansion would involve various practical difficulties and, if effected, would remove the programme from the realms of the possible for most class teachers. It was brought no further.

5.2 FACILITATING AUDITORY SKILLS

This had been part of the first three versions of the programme. Exercises in auditory discrimination, auditory memory, and vocabulary based on description of sounds had been used. However it was found that:

(i) the environment was too noisy for sounds to be distinguished with any clarity;

(ii) many of the children did not know what they were supposed to be listening for and the background noise was distracting;

(iii) many of the children would have needed individual attention to help them with this aspect of development and it was not possible to provide this.

This was dropped from the second run of version III and was not included in version IV.

5.3 USING MILK TIME FOR LISTENING ACTIVITY

The children usually took their milk at small tables in groups of four to six. The situation was not conducive to teacher-children interaction, as the children were mostly facing away from the teacher and towards each other. The teacher saw this as a time for social interaction among the children. But in fact they were drinking, and often eating as well, so the opportunity to talk and be understood was minimal. Because of the seating arrangements it would not have been practicable to have a group chat with the teacher, and, in any case, the teacher's voice could be considered to need a rest after the programme sessions.

It was suggested that the record player might be used at this time when the children could listen: there should not be too much background noise and, as they finished their milk, they could perhaps join in the singing.

This proposal was taken up by the teacher but proved impractical. We had given insufficient consideration to the internal logistics of the situation.

Here, the main difficulty was lack of manpower. It was compounded by the need to keep everything locked up at night. The record player was precious and could not be set out with the rest of the equipment early in the morning as the teacher would not have been able to guard it while taking the programme sessions. In consequence, it could only be brought out and connected up immediately before use. The socket was at the opposite end of the room from the storeroom which meant two journeys, one for the appliance and one for the record, both before and after use. A child could have been asked to carry the record, but this was not the practice, probably for good reasons. As the teacher had to supervise the distribution of the milk, she stood by the crate and often, when the milk was gone, had to allocate biscuits in different numbers to different children depending on how much they had paid earlier in the morning. It was not easy to see the point at which the record player should be brought out. So, although the record player was used from time to time, it was clear that milk time was inappropriate for this activity.

5.4 TEACHING THE CHILDREN TO READ THEIR OWN NAMES

Initially, it had been suggested that some sight reading vocabulary should be part of each unit, so as to link up with what the children would be learning later on and to prepare them for the notion that words could be represented symbolically. The teacher had thought that this would be quite beyond the children and reservations were expressed about any approach to the formal teaching of reading to this age group. Instead, it was proposed that the children should learn to identify their names. This aim was acceptable to the teacher.

We felt, however, that to teach them to read their names in a vacuum, so to speak, would be of negligible value. Opportunities to use the skill to some purpose would be needed. But in their classroom there was no need to employ name labels as everything was common property, the children did not use exercise books or reading books nor did they have places assigned to them where their names might be put. Three ways in which reading their names could be encouraged were found in the existing situation.

(i) By putting their names on individual coat hooks it was thought that the children might be able to show their mothers that they could read their names and where they were supposed to put their coats.

In practice, although the teacher made sure that each child could identify his own name on his own coat hook, the mothers seldom asked the children to read the names but simply read them themselves and hung up the coats.

(ii) By printing the child's name on any drawing or painting he might do, so that he could reclaim it at the end of the day, and bring it home. Although this was done, and children *did* bring home the products of their enterprise, it was often allowed to lapse. Here the problem was in part lack of time but there were complaints from some quarters about loose pages causing litter in the playground and in the estate.

(iii) The teacher wrote the names of the children in each group on a large piece of card, and also gave each child his own name on a smaller piece of card, but opportunities for using this knowledge did not often arise.

5.5 INTEGRATING THE ACTIVITIES OF THE DAY

A suggestion made in the early stages was taken up in modified form later on. The proposal had been to write an outline of the day's activities in the form of a chart which could go on the wall. It was thought that, if the children were told what was on the chart, it might help make them more settled and provide some practice for sequencing exercises. Although this was not done in written form, the teacher made a point of talking about the day's activities later in the programme.

An allied suggestion was to write somewhere, on a corner of the blackboard for example, and for her own benefit, the vocabulary which was receiving particular attention during the current week. This would serve as a reminder to use this in concrete situations which might arise, as when the children were lining up to go outside, or listening to the story. This specific suggestion was not taken up but as time went on, and the

teacher had more time for organisation, she emphasised the concepts and vocabulary used during the programme sessions at the other times when she had the children in a big group, for example, first thing in the morning and also just before they went home.

A further suggestion which was accepted was to put the pictures and illustrations used for the programme sessions up on a section of the wall when the session was over. The children might then look at them again, or at least the ideas might be kept before their eyes. The illustrations were taken down at the end of each unit to make room for those of the one which followed.

It is apparent that many innovations were difficult to put into action, either because they represented quite a radical departure from the approach of the teacher to her work in the past, or because the situational variables made them impractical. Some were adopted by the teacher after the experimental period, like the suggestion on teaching some sight words. This occurred when she had also been using the Breakthrough scheme and had practised applying its principles. The teacher used the language experience approach with great satisfaction in groups of the same age and background the following year.

6. THE CONTRIBUTION OF THE WEEKLY EVALUATION

Results of weekly evaluations, together with the teacher's comments, were used in making revisions and developing further units. There was confirmation of the usefulness of recognised procedures employing concrete examples, activities and practice of developing skills.

6.1 FORMAT

In addition to the psychometric assessments (described in Chapter 3) a weekly evaluation was carried out. This took the form of five or six questions, one on each section of the previous week's unit. These were administered to four children, one from each group. The questions were based closely on the objectives and used the material that had been taught. The evaluation was useful in several ways:

- it indicated whether the children had in fact mastered the material;
- it indicated, if they had not, the stage they had reached in acquiring certain concepts, as the questions were adapted when the child failed to answer, and notes were kept of alternative versions and replies;
- it also provided suggestions for teaching strategies based on the adapted questions from above;
- it showed which items caught the attention of the children and gave some clues about their perceptions of objects.

Different types of questions were used, depending on the unit and the stage of the programme. These give some indication of the total range:

(i) Straight labelling of an object which is present: "What is this?"

(ii) Functional labelling when the object is not present: "I'm thinking of something we sit on. What is it?"

(iii) Straight description of a present object: "Tell me about this." If the child did not respond adequately, supplementary questions were

asked: "What is it called?" "What is it made of?" "What shape is it?" "What else can you tell me about it." "What colour is it?" "How does it feel?" "What do you use it for?" (Eventually the child was expected to give three attributes when asked about something.)

(iv) Sequence of events - simple. "Which do you put on first, shirt or vest?"

(v) Sequence of events - more complex. "Tell me about the boy who planted the carrot seed".

(vi) Colours. A sequence had been developed for teaching and testing colours when it was realised that the phrase 'He knows his colours' could be interpreted in different ways. This progressed from the consideration of colours as the same or as different, through the matching of colours, to finding a colour named by the teacher and, eventually, to the identification of a colour by name on the part of the child.

(vii) Concepts from the Boehm test were also tested and taught according to a sequence.

(viii) Number was tested in two ways according to the unit. The child might be required to respond by straight counting of objects up to 5 or to indicate knowledge of how many attributes of objects were present without counting, for example legs on a chair or legs on a boy.

(ix) "Why?" questions were included. "Why do we need two shoes?"

(x) "What for?" questions were also used. "What do we use milk for?"

(xi) Questions involving classification were initially simple, such as, "Tell me something that is round", but at a later stage become more complex, "Tell me three things that are round". The child might also be asked, "Which one is different - apple, orange, pencil?" "Why?"

6.2 INCORPORATION OF THE RESULTS OF THESE EVALUATIONS

Since the questions used in the evaluation procedure followed closely the material and methods of reinforcement used in the programme, and the teacher was, through her own decision, sticking carefully to these in her administration of the programme, it was hoped that the

results would tell us about the material and approaches, taking into account the characteristics of the children. The possibility was envisaged that the children, picked at random each week, had possessed the knowledge they displayed before their entry to the programme as, on the whole, the more able groups performed better. It had been anticipated that contamination of this kind could occur but would be slight and that it would decrease as the programme progressed.* We also wondered whether the material was too difficult for the slower children. The teacher certainly felt this was so. But it was realised that to have a different programme for each group would be administratively impossible.**

As the purpose of the evaluation was partly to see what ideas might need additional attention and whether any were too difficult, the results were discussed with the teacher each week; questions, additional questions and answers were recorded and these gave valuable indications of the progress made. In the event, it proved to be a worthwhile procedure. Very glaring gaps, like 50 per cent failure to answer a question correctly, were given further attention in later units. The teacher also tried to work some revision into the general class time, when she interacted with all the children as a group, either first thing in the morning, or towards the end of the day. Unfortunately, individual children could never be followed up owing to lack of time and personnel, although the evaluation procedure gave indications of potentially serious perceptual lacks in a minority as well as remarkable gaps in the general knowledge and the experience of the majority.

6.3 SOME POINTS ARISING FROM THE WEEKLY EVALUATIONS

These were noted in connection with:

(i) the objectives of the programme;

(ii) the content and its appropriateness;

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* This expectation was later supported by the standardised test results (reported in Chapter 7).

** When the standardised tests were administered after the experimental period, the teacher was greatly encouraged as it was found that substantial gains had been made by the slower groups.

(iii) the methods of teaching the content.

They will be considered in relation to the descriptive, narrative and classificatory aspects of language which we hoped would be fostered by the programme.

DESCRIPTION

(i) (a) The children could often apply a label in order to locate an object before they could supply the label for themselves.

(b) The fact that objects have a name apart from the materials of which they are composed was not easily learned.

(c) The instruction 'Tell me about' did not mean much to the children at first. They did not know what was required.

(d) The children progressed from supplying one attribute to supplying three or four when asked to 'tell me about' something.

(ii) (a) The content of the first unit, about the Classroom, was found to be too abstract and was changed in the subsequent versions.

(b) The children were particularly interested in units and sessions about Food.

(c) Some of the content was new to them, including parts of the body, sources of food, and colours.

(iii) (a) Many times it became clear that it was essential to have the object under discussion not only in the room but within touching distance. Pointing out an object or attribute often led to error when the child was not sure what was being indicated.

(b) The phrasing of questions had always to be related to concrete objects, preferably present.

(c) The phrasing of questions about actions had to be related to actual examples of the action carried out by the questioner. "What *am I* doing with my head?" *Not* "What *can you* do with *your* head?"

(d) It was very necessary to encourage frequent verbalisation of attributes by the children as well as to provide opportunities for them to exercise their understanding of these by classifying and identifying objects when these were verbalised by somebody else.

(e) The choice of questions was important. Children were reluctant to answer questions to which they felt the teacher or questioner would already know the answer. The use of questions of the latter kind, although it might accustom the children to what would be expected of them in school, was found to be less effective in persuading them to talk spontaneously. Another factor seemed to be the affective dimension: if it seemed that the adult/teacher cared about how the child felt, the question was more productive.

NARRATION

(i) (a) The ordinal concepts of 'first' and 'last' were introduced early in the programme but proved very difficult to teach.

(b) In general, children progressed to the stage where they could relate up to three actions in a sequence from a story they had heard or an activity they had carried out.

(ii) The stories devised by one of the authors (J.W.) to complement the content of the programme served the purpose of helping the children to sort actions into logical sequences.

(iii) Actions which had been described to the children, such as making a sandwich, were not reproduced by them as well as actions which had been carried out before their eyes and described at the same time, like making buns or soup, or talked about by themselves during the programme session and afterwards, like building a sandcastle.

CLASSIFICATION OF COMMON CONCEPTS

(i) (a) The children learned to interpret cues given to them to assist classification.

(b) They could often demonstrate understanding of a concept, for example, 'next to' before they would use the term themselves.

(c) 'Different' remained easier for them to explain than 'same'.

(ii) (a) Gaps in their general knowledge were only touched upon.

(b) They learned the names of the days on which they came to school more readily than those of the other days. Additional information on this topic may be found in Figure 3, Chapter 7, where some results from the Boehm Test of Basic Concepts are presented.

(iii) (a) Questions of incongruity were meaningless, perhaps because of the children's limited experience.

(b) It could never be assumed that they would generalise from what they had been taught. For example, the children identified as fruits only those actually introduced in the classroom. Here, again, the importance of concrete demonstration of even the simplest concepts was apparent.

7. PRINCIPAL PSYCHOMETRIC RESULTS

Pre- and post-test scores for both experimental groups showed significant gains in IQ and in listening vocabulary. Comparisons with the control groups indicated that the programme was successful in improving the children's language functioning. Later data suggested that the effects of two terms of the programme were more enduring than those of one term. Possible reasons for these results are explored.

7.1 THE EFFECTS OF THE LANGUAGE PROGRAMME

An important part of this research concerned the nature and extent of the benefit which accrued to the children involved. Did they gain from the experience or was their progress similar to that of other children for whom no special programme had been initiated?

Research in the United States (Stanley 1973) and in Britain (Woodhead 1976) has found that intervention programmes of less than two terms do not have a substantial influence and also that those of longer duration show a pattern of diminishing returns, with indications that the relationship between length of programme and measured improvement is complex. As the normal school year provides a natural limit to the length of time which children are likely to spend together with the same teacher, the effects of continuing a programme for many terms are of little immediate practical interest. In any case, the ethos of the present research project did not accord with the experimental evaluation of a great variety of possible programme lengths. Rather, our concern lay in the practical issue of whether one term of the programme would produce noticeable differences and whether two terms would reveal greater progress than one.

7.2 THE IMMEDIATE IMPACT OF THE PROGRAMME

To determine the impact of the programme on the children's linguistic development, pre-test and post-test scores were examined and com-

parisons made between the 'programme' children and the non-programme control groups. These data are shown in Tables 3, 4, 9 and 12 and in Figures 1 and 2. The relationships between the measures are displayed in Tables 5, 6, 7, 8, 10 and 11.

Table 3: *Means and standard deviations for children who experienced two terms of the programme (N=22)*

	Pre-test		Post-test	
	M	SD	M	SD
EPVT	93.18	10.48	101.86*	7.07
ITPA	31.64	5.59	34.32	3.46
BTBC	16.27	6.50	25.14	4.30
IQV	82.36	12.40	99.45*	14.51
IQP	88.36	11.48	92.50*	11.49
IQFS	83.73	10.75	95.05*	12.76

* This gain is statistically significant: $p<0.01$

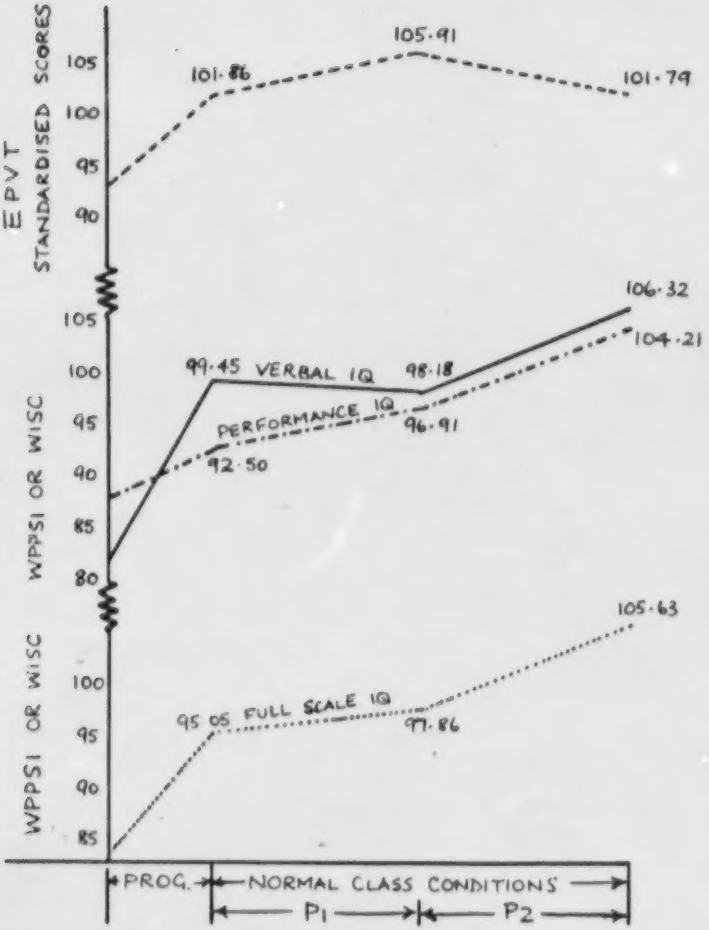
Table 4: *Means and standard deviations for children who experienced one term of the programme (N=18)*

	Pre-test		Post-test	
	M	SD	M	SD
EPVT	99.94	8.50	104.28*	10.60
ITPA	27.33	2.97	31.83	4.57
BTBC	21.00	4.00	28.67	6.37
IQV	86.44	11.98	101.17*	13.63
IQP	89.17	9.42	96.78*	10.29
IQFS	86.83	10.65	99.06*	12.30

* This gain is statistically significant: $p<0.01$

The mean post-test scores on all measures were higher than those obtained on pre-test, not only for those children who experienced two terms of the programme but also for those who experienced only one. The

FIGURE I
CHILDREN WHO EXPERIENCED
TWO TERMS OF THE PROGRAMME
N = 22



increments in IQ scores, measured by the subscales and full scale of the Wechsler Pre-school and Primary Scale of Intelligence, and in listening vocabulary, measured by the English Picture Vocabulary Scale, were significant ($p<0.01$), indicating that their first two terms in school coincided, for these children, with a period of considerable, and possibly exceptional, acceleration in cognitive development.

Table 5: *Intercorrelation matrix of measures: entry to the programme of two term's duration (N=22)*

	ITPA	BTBC	IQV	IQP	IQFS
EPVT	0.55*	0.72*	0.81*	0.37*	0.75*
ITPA		0.44*	0.71*	0.33	0.65*
BTBC			0.78*	0.50*	0.81*
IQV				0.52*	0.85*
IQP					0.77*

* Significant: $p<0.05$

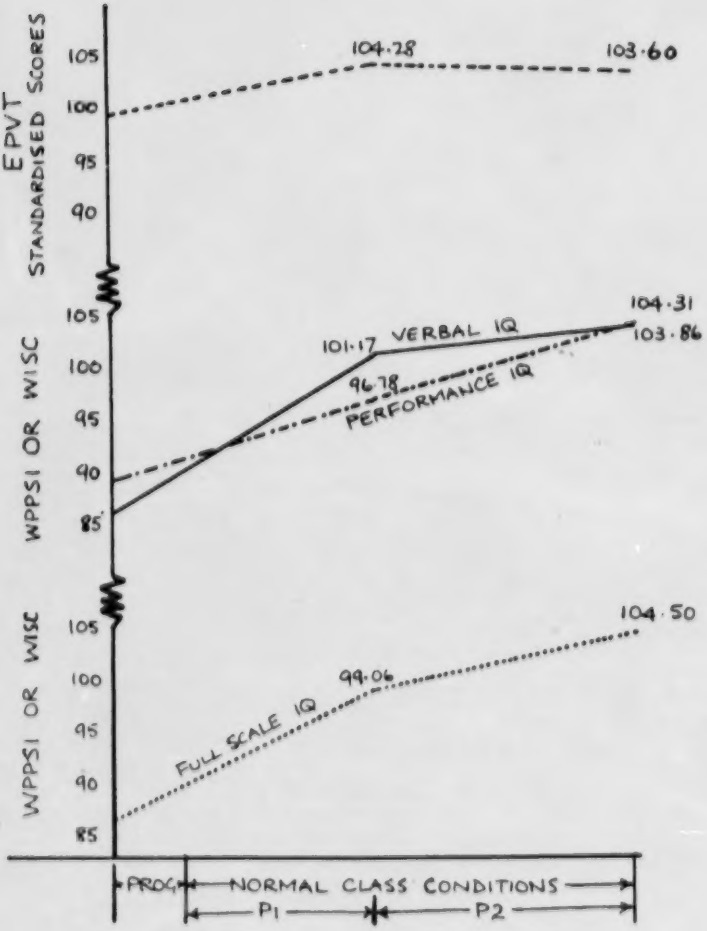
Table 6: *Intercorrelation matrix of measures: after two term's experience of the programme (N=22)*

	ITPA	BTBC	IQV	IQP	IQFS
EPVT	0.17	0.52*	0.50*	0.47*	0.60*
ITPA		0.05	0.61*	0.32	0.57*
BTBC			0.54*	0.19	0.41*
IQV				0.44*	0.84*
IQP					0.82*

* Significant: $p<0.05$

To investigate the question of whether their progress was similar to that of other children, comparisons were made between their test scores and those of the control groups. (The design of this aspect of the evaluation is described in Chapter 3 and summarised in Table 1.) The first of these annual comparisons was made between the test results of the various groups at five-and-a-half years of age and indicated that the

FIGURE 2
CHILDREN WHO EXPERIENCED ONE TERM OF THE PROGRAMME
N = 18



children who had experienced the programme achieved significantly higher IQ scores and significantly higher scores on listening vocabulary than those who had not. This applied whether the children had spent one term or two terms in the programme. Although criticisms continue to be levelled against the IQ measure, a child's IQ score obtained in a standard situation has more behavioural correlates than any other psychological measure (Kohlberg and Zigler 1967). Also, it best meets the desirable criteria for evaluation purposes: (i) predictive validity (ii) relationship to the intended outcome of an educational innovation and (iii) parsimony (Cooley 1974) and so these results suggest that the programme had a considerable and highly satisfactory immediate impact.

Table 7: *Intercorrelation matrix of measures: entry to the programme of one term's duration (N=18)*

	ITPA	BTBC	IQV	IQP	IQFS
EPVT	0.42*	0.34	0.35	0.54*	0.46*
ITPA		0.31	0.60*	0.75*	0.71*
BTBC			0.36	0.30	0.37
IQV				0.74*	0.95*
IQP					0.91*

* Significant: $p<0.05$

Table 8: *Intercorrelation matrix of measures: after one term's experience of the programme (N=18)*

	ITPA	BTBC	IQV	IQP	IQFS
EPVT	-0.08	0.11	0.44*	0.36	0.44*
ITPA			0.20	0.03	0.10
BTBC			0.07	0.43*	0.22
IQV				0.70*	0.95*
IQP					0.89*

* Significant: $p<0.05$

Table 9: *Mean and standard deviations on measures administered when the children were of average age five years and six months*

	Children who experienced two terms of the programme N=22		Comparison group I N=23		Children who experienced one term of the programme N=18		Comparison group III N=17	
	M	SD	M	SD	M	SD	M	SD
EPVT	105.91*	11.03	96.30	10.91	104.28**	10.60	101.28	9.39
ITPA	30.36	3.74	29.74	3.44	31.83	4.57	28.72	3.43
BTBC	30.23	3.74	26.09	6.32	28.67	6.37	24.00	5.57
IQV	98.18*	12.19	91.08	10.77	101.17**	13.63	92.56	15.29
IQP	96.91*	10.41	84.74	14.68	96.78**	10.29	90.72	12.30
IQFS	97.86*	11.03	86.48	12.58	99.06**	12.30	90.67	14.08

* Significantly higher than comparison group I; $p<0.01$
** Significantly higher than comparison group III; $p<0.01$

Indeed, if it had been possible to allocate children at random to participation or non-participation in the programme, results of this magnitude and consistency could very readily be accepted as indicating that the programme had exerted a favourable influence upon the cognitive development of the children.

7.3 INTERPRETING THE RESULTS

However, in a quasi-experimental design, caution in interpretation must be exercised and alternative causative factors must be sought and examined. The evaluation literature is well supplied with discussions of design of this nature, and others of a less satisfactory kind (see, for example, Milcarek and Struening 1976). In essence, a good quasi-experimental design is one in which supporting circumstantial evidence for the obtained results is secured (Campbell and Stanley 1963). Nunnally (1976) considers that the most satisfactory versions include (as our design does) a test-retest format and control groups. The advantage of such quasi-experimental designs is the easy recognition they provide of what either has or has not been controlled. This enables the findings to be formulated with care and guards against the uncritical interpretation of results (Milcarek and Struening 1976).

The nature of control and experimental groups in quasi-experimental designs deserves discussion. In educational studies, they usually do not involve random assignment but take the form of similar intact groups. The reasons for this have been succinctly stated by Light and Smith (1970) as practical, philosophical and logical. Firstly, it is impractical to assign children, especially young children, to different treatment groups on a random basis. Secondly, allocation to participation or control by 'chance' requires considerable tolerance from parents and school authorities. Thirdly, most innovations, if put into wide practice, will deal with natural groupings. Thus, it is argued that if it is desired to generalise results to a geographically diverse population, such as other individual teachers and their particular classes, only naturally occurring subgroups should be included (see Light and Smith 1970).

It follows that a crucial element in quasi-experimental designs concerns equating treatment and control groups. As has been described in Chapter 3, the children who participated in the programme for two terms, entered it (and the school) in January 1975. There were two control groups for this experimental group, comprised of children who had entered the school in January 1974 and January 1973. These cohorts resembled the experimental children in the following ways:

- they were drawn from the same housing estate and from similar backgrounds;
- they entered the same school at the same age and at the same time of year;
- they experienced classes of almost identical sizes in which they were taught for two terms by the same teacher.

With the exception that they were taught for only one term by this teacher, all of these comments apply equally well to the third control group. As indicated in Chapter 3, these children, who entered school in September 1974, served as a control for those who entered in September 1975 and who experienced one term of the programme.

From the standpoint of final interpretation and its relationship to developing science, no experiment may be regarded as perfect. Where controls are less than perfect, as they must always be in the real world, the experienced interpreter must consider in detail the likelihood of uncontrolled factors accounting for them. The more implausible this becomes, the more 'valid' the findings. For example, a possibility which will occur to all those involved in examination procedures is that the discrepancy in favour of both groups of 'programme' children arises from test sophistication rather than from any actual differences between them and the control groups. However, it seems reasonable to assume that for a child in Primary 1 the encounter with these standardised tests, some twelve and eighteen months previously, would be unlikely to have so great an influence, especially when he was unaware on those occasions that an assessment was being made, was not informed of the correct answers or even told when he made a mistake. As the number of annual assessments grows and more data have become available, permitting comparisons between control groups as well as between them and the 'programme' groups, it has

been possible to examine this notion more thoroughly. When this was done, no support emerged for the view that test sophistication was a major influence on the superior scores obtained by the programme children.

The experimental psychologist or, for that matter, the experienced teacher is aware of other difficulties, such as within-group individual differences and test-retest unreliability, but it is our view that if several sets of differences can all be explained by the single hypothesis, namely that the programme had an effect, while several separate uncontrolled-variable effects must otherwise be hypothesised, then the effect of the programme becomes the more tenable (cf. Campbell and Stanley 1963) and, hence, our conclusions are that the programme did exert an immediate, real and measurable influence upon the children who participated in it and that it was successful in improving the children's levels of language functioning.

7.4 OTHER BENEFITS

The programme focused upon language and no elements were explicitly included to encourage the perceptual and motor skills tapped by the performance subscales of the intelligence tests (WPPSI and WISC) incorporated in the assessments, yet significant increments were also found in these test results. As standardised scores make allowance for age-related improvement, it is apparent that the programme exercised some accelerating or facilitating influence of a more general cognitive nature. This finding accords not only with accepted belief in the interactive quality of cognitive development in childhood but also with much psychological research into the relationship between language, thought and general reasoning ability.

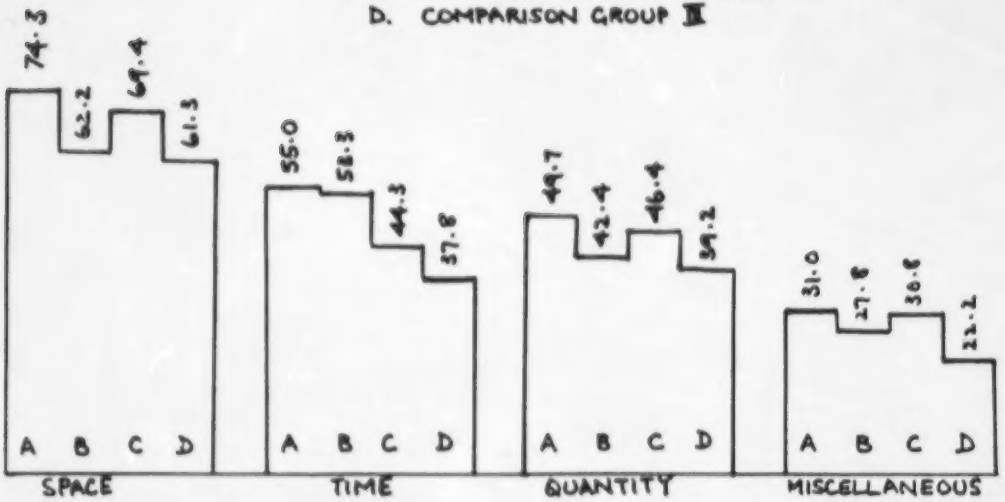
The results obtained with the Boehm Test of Basic Concepts are also relevant to these conclusions. A breakdown of these data, into the four concept areas which this test covers, is presented in Figure 3. The average age of the children was then five years and six months and those who a year earlier had experienced two terms of the programme were still marginally the most successful in all four areas.

FIGURE 3

BOEHM TEST OF BASIC CONCEPTS

PERCENTAGE OF CHILDREN PASSING IN EACH OF FOUR GROUPS

A. TWO TERMS OF PROGRAMME
B. COMPARISON GROUP I
C. ONE TERM OF PROGRAMME
D. COMPARISON GROUP II



7.5 COMPARISONS OVER TIME

When the differences between the 'programme' children and the comparison groups are examined, it is apparent that the performance scores of all groups reflect greater improvements than would be anticipated from maturational effects. In general these results suggest that normal classroom procedures may already provide considerable stimulation for these 'performance' aspects of cognitive development. This interpretation receives further support from the levels of the correlations between performance and verbal scales obtained for the different groups. Thus, these correlations are lowest in Primary 1 and Primary 2 for the children who experienced the programme for two terms (see Tables 10 and 11).

When individual intelligence tests, such as the WPPSI or WISC, are administered to culturally disadvantaged children in the later classes of the primary school, the performance IQ scores obtained are generally similar to or higher than the verbal IQ scores. For middle-class samples and non-disadvantaged groups, discrepancies more usually take the form of a higher verbal than performance IQ.

The children who experienced two terms of the programme are the only group of the five studied in this project who do not display the emergence of this 'disadvantaged discrepancy' when assessed in the Primary 2 year (see Table 12). Unfortunately, the immediate effect of the programme in raising verbal IQs above performance IQs, which can be seen in Figures 2 and 3, has disappeared in Primary 2 for those who received only one term.

The means obtained on the EPVT in Primary 2 by both groups of 'programme' children could be taken as a preliminary indication, not yet apparent in the other measures, of a 'washout' effect similar to that which has been observed to follow many, but by no means all, of the American intervention programmes. Follow-up assessments of children who participated in some of the British EPA innovations suggest that such a gradual return to the level of the non-programme children need not be regarded as inevitable (Smith and James 1977). Much depends upon the children's subsequent school experiences.

Table 10: *Intercorrelation matrices of measures administered when the children were of average age five years and six months*

	Children who experienced two terms of the programme N=22					Comparison group I N=23				
	ITPA	BTBC	IQV	IQP	IQFS	ITPA	BTBC	IQV	IQP	IQFS
EPVT	-0.17	0.61*	0.62*	0.46*	0.61*	0.35	0.40*	0.37	0.21	0.50*
ITPA		-0.06	-0.06	-0.15	-0.13		0.47*	0.40*	0.28	0.44*
BTBC			0.75*	0.43	0.69*			0.63*	0.57*	0.53*
IQV				0.60*	0.91*				0.92*	0.82*
IQP					0.86*					0.53*
	Children who experienced one term of the programme N=18					Comparison group III N=17				
	ITPA	BTBC	IQV	IQP	IQFS	ITPA	BTBC	IQV	IQP	IQFS
EPVT	-0.08	0.11	0.44*	0.36	0.45*	0.41*	0.70*	0.60*	0.65*	0.68*
ITPA		-0.10	0.20	-0.03	0.10		0.43*	0.56*	0.62*	0.64*
BTBC			0.07	0.43*	0.22			0.73*	0.72*	0.80*
IQV				0.70*	0.95*				0.67*	0.94*
IQP					0.89*					0.88*

* Significant: $p<0.05$

Table II: *Intercorrelation matrices of measures administered when the children were of average age six years and six months*

	Children who experienced two terms of the programme N=22			Comparison group I N=23			Comparison group II N=20		
	IQV	IQP	IQFS	IQV	IQP	IQFS	IQV	IQP	IQFS
EPVT	0.17	0.33	0.28	0.49*	0.39*	0.50*	0.45*	0.40*	0.46*
IQV		0.49*	0.89*		0.52*	0.89*		0.66*	0.91*
IQP			0.83*			0.84*			0.92*

	Children who experienced one term of the programme N=18			Comparison group III N=17		
	IQV	IQP	IQFS	IQV	IQP	IQFS
EPVT	0.60*	0.69*	0.66*	0.49*	0.39*	0.50*
IQV		0.69*	0.94*		0.52*	0.89*
IQP			0.89*			0.84*

* Significant: $p<0.05$

Table 12: *Means and standard deviations on measures administered when the children were of average age six years and six months*

	Children who experienced two terms of the programme N=22		Comparison group I N=23		Comparison group II N=20		Children who experienced one term of the programme N=18		Comparison group III N=17	
	M	SD	M	SD	M	SD	M	SD	M	SD
EPVT	101.79**	9.52	97.49	11.35	93.10	13.27	103.56	11.36	103.17	11.88
IQV	106.32**	10.24	98.57	12.25	96.95	10.37	103.86	12.28	102.11	11.91
IQP	104.21*	10.32	103.91	12.15	98.95	12.18	104.31	9.65	104.22	15.14
IQFS	105.63**	9.89	101.57	11.52	97.25	11.35	104.50	11.11	103.44	13.39

* Significantly higher than comparison group I and comparison group II; $p<0.01$
** Significantly higher than comparison group II; $p<0.01$

Should the effects of this language programme prove to be more durable than some emerging elsewhere, which seems possible, this would provide additional evidence for those educationists who have argued that the most appropriate agent for the development and implementation of such innovations is the person already located within the situation and possessed of specific knowledge concerning the neighbourhood, the school and the children involved - namely, the class teacher.

7.6 TWO TERMS OR ONE?

It is clear that the linguistic benefits associated with two terms' experience of the programme are greater than those from one and that the relative advantage established by these two terms enables these children to keep ahead as they progress through the normal curriculum of the primary school. This is the finding intuitively expected but nonetheless worthy of note.

However, a number of factors in addition to length of programme experience may have contributed to this result.

The ages of the children. Those who had two terms of the programme (Group I) had a mean age on entry of 4.2 years, with a range from 4.0 to 4.4 years. Those who participated in only one term (Group II) had a mean age on entry of 4.4, with a range from 4.0 to 5.1 years. However, 16 of the 18 children were in the range 4.0 to 4.5, with the remaining two aged 5.0 and 5.1 years, so the age difference between the groups may be more apparent than real. Certainly it provides no evidence concerning the most suitable age at which to introduce a language programme.

Programme differences. As described above, the programme went through modifications in the course of its implementation. The modifications related not to basic objectives and content, but to methods and materials. The most substantial modification was that put forward in Version III, which was used with Group I in their first term. The version used by them in their second term and also by Group II (Version IV) did not differ markedly from Version III. It involved:

- some reduction in content;
- increased opportunities for participation by the children;
- more provision for revision

(*This is illustrated by the examples of a session from each of these versions in Appendices IV and V.*) There was no variation in content, method or order of presentation for Version IV as implemented for both groups (*see introduction to Appendices*). But, by having experienced Version III as well, Group I had had a double exposure to the content, and additional opportunities to become attuned to the methods and expectations of the teacher.

Inconsistency effects. The children in Group I attended school only in the mornings but those in Group II remained at school in the afternoons, when their class was divided and joined two other classes. Thus, the children had to adjust not only to a longer school day but also to different teachers, companions, procedures and environments.

Other differences in the school experiences of the two groups related to the situations which they encountered after the completion of the programme. Group I remained together but moved to a 'new' teacher at the start of the next term. However, Group II was divided. Six children remained with the 'programme' teacher, while six went to join each of the other two classes in their year group.

It seems probable that these very different school experiences would influence the children's progress as assessed by standardised measures. Smith and James (1977), who followed up English children who had participated in special programmes introduced in the West Riding EPA Project, found that those groups which were kept together afterwards maintained their rate of progress and degree of advantage better than those who were later divided. This was true even when this division of the children was between classes in the same school, as in the present case.

8. EXTENT TO WHICH AIMS WERE ACHIEVED

As well as realising some of its aims, the programme had the effect of directing more attention to language activities even when these occurred outside the time allotted to it.

8.1 INITIAL AIMS AND INTENTIONS RECALLED

It will be recalled that this work was initiated with three aims:

- satisfying curiosity about the usefulness of an intervention programme in a Belfast school having some of the characteristics associated with the designation EPA;
- implementing intervention in a primary school in which the class teacher would be the principal agent in furthering the programme;
- examining the employment of inexpensive materials which could be found among or devised from, those available in most primary schools.

Implicit in its initiation was the hope that useful guidelines might emerge for action elsewhere and it was undertaken in response to a request for a programme which would stimulate language development in young, disadvantaged children.

8.2 USEFULNESS OF THE PROGRAMME

As the intervention progressed, it became apparent to the teacher and to the authors that the programme was serving a useful purpose in focusing and directing classroom activity so that language development was accorded much greater emphasis than previously. The weekly evaluations supported the view that this greater emphasis was influencing the children's levels of linguistic ability. The immediate, post-programme, and the later, psychometric assessments provided further evidence that the children's receptive vocabulary and verbal abilities generally made more rapid progress than would have been expected on maturational grounds

or by comparison with the control groups. Therefore, the programme appears to have met the first of the aims set out above.

8.3 THE CLASS TEACHER AS THE PRINCIPAL AGENT

That it proved feasible to implement the programme, with the class teacher as the principal agent, is a tribute to the enthusiasm, adaptability and professional quality of the teacher concerned. Much more was involved in the implementation of the language intervention programme than any of us realised initially. In retrospect, it is apparent that, in the implementation, a series of stages occurred, through which it was necessary to progress. Something in the nature of an assimilation and accommodation process was required before the authors and the teacher reached an agreed and workable pattern for the programme.

The teacher had to accept the idea of having set topics in a planned sequence, the need to select material within the topic areas and the importance of sticking to the sequence. The authors had to discover how the material should be presented so that it would be not only meaningful but also stimulating to the children, and to come to terms with the limitations of the classroom environment. These covered practical aspects such as fitting the programme into the normal school routine so that nobody became exhausted, the need to integrate the work with other daily activities and the acceptance that the assistance afforded by the presence of a second adult was essential if a structured language programme was to be used with this young age group.

All parties had to be confident and unanimous about what constituted 'desirable' behaviour in a programme session. Achieving this level of agreement took time but also paid certain dividends. For example, working closely together led to joint discoveries which ranged from the most effective phrasing of questions, through the realisation that concrete materials were of great assistance in relation to even the most common concepts, to the acceptance that the children should participate in actual activities whenever it was hoped to use these as a basis for further progress.

All of these features could not have been grasped at once; they had to be worked through in sequence. Many of these aspects of the implementation were not in themselves salient and attracted attention only as others were satisfactorily dealt with. The sequential nature of these developments prior to the implementation and in its early weeks focused our attention upon the relevance for teacher-researcher cooperation of moving slowly and allowing time for problems to rise naturally to the surface where they could be assessed in turn. In our experience, some anticipated problems simply may not arise at all while others which have not been recognised as such in the literature can be very persistent.

The continual presence of one of the authors (J.W.) in the classroom probably facilitated the development of a situation where a fairly frank exchange of views was possible, once the teacher was reassured that the programme was the variable under scrutiny and not her treatment of it. Informal participatory monitoring is probably essential if programmes are to be evaluated effectively.

But programmes such as this, which are developed with a particular teacher in mind make their point, possibly as this one appeared to do, by giving the teacher the opportunity to practise techniques which may be new to her. By following detailed guidelines and by repeating the same sequence of stages in teaching concepts, vocabulary, general knowledge and logical knowledge through a series of occasions the teacher absorbs the principles and is able to apply them to other material once the experimental period is over. Thus, a very different situation may be created from that which follows the adoption of a programme package which incorporates obligatory and essential content and methods to be taught to all children. Such a package can hardly suit all children; it may not suit all teachers. Fundamentally, it is also wasteful because it gives the teacher insufficient recognition as a potentially powerful element in the learning situation.

This programme aimed not at telling the teacher what to do, but at assisting her to formulate objectives which would be meaningful in the area of language behaviour and methods of fulfilling them which would be satisfying to her and of long-term benefit to the children.

8.4 THE EMPLOYMENT OF INEXPENSIVE MATERIALS

The third aim of this intervention concerned the employment of inexpensive materials which could be found among, or devised from, those available in most primary schools. It became apparent quite quickly that those already available were not always suitable. Although considerable advance planning is necessary, if the teacher is to provide her own materials, the authors and the teacher were agreed that this latter method was the more satisfactory. As such materials are more personal to the teacher, they can be devised to suit objectives rather than the other way about. For the programme one of the authors (J.W.) initiated the process by providing a certain number of materials. Then, when the teacher saw that they 'worked', she also devised some. In this connection it is also important to stress the need for constant renewal and reappraisal. Permanence of all materials is not necessarily a good thing, because the teacher gets bored even if children are new to particular materials. Therefore, in programmes of this kind it is advantageous to ensure that new materials have to be devised from time to time.

8.5 OTHER CONSEQUENCES

Whether the work provides useful guidelines for others wishing to implement a language intervention programme elsewhere is a matter for them to decide. The one described here can be said to have 'worked' for the children, the teacher and the school. As indicated in Chapters 6 and 7, the children demonstrated considerable immediate benefit and showed measurable effects some two years later. These are objective and psychometric results, whereas the effects upon the teacher and the school cannot be assessed in this way. Some have already been considered; others will now be mentioned briefly.

Within the school the feeling was generated that extra language stimulation along the same lines should be initiated in later classes, throughout the infant years. It was generally accepted that the experiment had been worthwhile and some administrative changes resulted. The teacher started remedial language in the afternoons with Primary 1 classes and, the following year, when there were no January entrants, she

took small groups from the Primary 1 classes for 20-minute sessions, covering a programme which had four sessions per unit. She spent the fifth day catching up with children who had been absent on previous occasions. She admitted that the bookkeeping took a long time, but she was convinced of the need to give every child equal exposure to both sessions and units. It is interesting that her arrangements represent a 25 per cent catch-up rate, just as we had found to be necessary during the implementation of the programme. The choice of longer sessions occurred because the teacher found that she was less rushed with 20-minute sessions. She built in more repetition, and did not try to cover so much material. In her view the concentration required had been too great during the experimental period, and she preferred to go at a more relaxed pace. The following year, when the teacher had no September class, she took small groups for longer periods. This time she tried 40 minutes and, using ideas from the programme again, gave them intensive attention, directed not only towards their language development, but, in some cases, towards their reading.

It is now more than a decade since Getzels (1965) stressed the need to give more thought to the 'transformation' of the school and perhaps less to the transformation of the child. Perhaps the conclusion to be drawn from our work is that these aims should not be seen as mutually exclusive. As Becher and Maclure (1978) point out 'school based reform enables the system to change little by little' so that successive innovations may be absorbed or, if this is deemed more appropriate, a quick, strategic withdrawal may be executed. Within many primary schools the attitudes and resources exist to achieve both a greater understanding of the problems of disadvantage and progress towards their solution, together with an acceptance of the need for 'healthy two-way traffic between laboratory and other social settings as alternating sites for experimentation' (Farr 1976). The measure of control currently exercised by the head teacher of a primary school provides the possibility for change in the system to come piecemeal and by practical experiments of the kind described here.

9. PRAGMATIC RETROSPECT

Some factors are considered which may have contributed to the effectiveness of the programme and which may have implications for similar projects. These include the ongoing consultation which led to valuable insights and modifications in content and method.

9.1 DETERMINATION OF OBJECTIVES

The determination of objectives must be a shared exercise. In this case they were determined by prior discussions with the interested parties, which meant that content, methods and materials could also be contributed by both teachers and researchers.

9.2 USE OF EVALUATION

We found that the weekly evaluation was essential. The random selection of a small number of the children minimised the nuisance which was, in any event, far outweighed by the benefits which accrued. To achieve these it is necessary to be specific about the aims of the evaluation and to accept and use the findings constructively and continuously.

9.3 CONSIDERATION OF OTHER ELEMENTS EMBODIED IN THE OBJECTIVES

In our case, socio-emotional and cognitive elements needed to be included in a specific way. We did not stress the socio-emotional side enough at first, and the teacher quickly spotted it.

9.4 PROGRAMME CONTENT AND METHOD

With such young children it is particularly important that the content should be relevant to the experiences of the children and to their

environment. Some of our items were not, and these were not effective. Similarly, it is necessary to embody concrete materials and participatory action, by children and teacher, giving life to the use and development of language. Frequent repetition, limited only by the need to avoid boredom, is as valuable as in the 'normal' classroom.

9.5 TEAM WORK

Discussions involving all those involved should be ongoing and joint decisions on objectives and materials need to be clearly stated. To assist these exchanges space for comments was provided, as a means of additional feedback, in each set of unit notes devised for the programme. Other record-keeping by the teacher was kept to a minimum.

9.6 GROUPING

Ability groups worked best in this project, perhaps because the measured IQ range within the class was quite wide (70-110) and socialisation problems contributed additional difficulties. We aimed at the middle group. Better groups could perhaps have been stretched more, while the slow groups could have gone much more slowly. They needed a great deal of consolidation.

9.7 TIMING

Ten to fifteen minutes seems in some ways a very short time. Not much material can be fitted in, especially if it is intended that the children should participate. On the other hand, ten to fifteen minutes is a long time for a teacher to have to engage in sustained conversation with a small group of children, monitoring, developing and reinforcing their responses, introducing new ideas and checking that they have been grasped.

9.8 EFFECTS OF SCHOOL ROUTINE

Checking on school routine is essential before making decisions about implementing a programme. Many projects reported in the literature seem to have taken place in special settings, away from the roar of the crowd and humdrum interruptions. In real life, as in our work, these factors, and more, have to be taken into account as they constitute normality wherein most children are educated. Our programme had to fit in with the usual interruptions of the school day plus those of the terms and the year, like fire drills, health, dental and hair inspections and other inspections, school concerts, plays, sports days and rehearsals for concerts and sports. There were also half-term and other holidays, outings and the effects of vandalism. The teacher had many things on her mind besides implementing a programme. While we managed to make up for days and time lost because we had allowed for some spare weeks, it was a close thing. In planning a programme, it is necessary to allow at least 25 per cent wastage time and never to expect to occupy every minute.

9.9 MATERIALS

Before assuming that the materials available already will fit a language programme, it is wise to check on what the objectives of the manufacturers were. Building a programme around the materials available might be easier than constructing a structured programme and then finding suitable materials, but in the end the latter system would probably prove to have a sounder basis.

9.10 STORIES

The purpose of storytime in the infant school and the themes, content and language of the stories used there might usefully be examined in some detail with a view to integrating them more into the general objectives of the early school years.

9.11 SEATING

We found that a recognised talking place with materials stored nearby and facilities for teacher and children to stand or sit comfortably was particularly valuable. A large writing surface fixed to a board or wall, and a magnetic or flannel board are accepted as useful additions to any infant classroom: the introduction of a language programme emphasised their worth.

9.12 FOLLOW-UP

This plays a very important part. But perhaps it should not be expected from the start, as the priority should be the programme session, which is far more difficult to structure. The follow-up should complement this and not be seen as an end in itself. Revision is clearly necessary but can easily take over as the prime activity, if the children seem slow to grasp certain concepts or display certain skills. Therefore, follow-up needs to be organised, supervised and its effectiveness evaluated. In our programme, lack of manpower made individual or even small-group follow-up impossible to supervise effectively. As in most infant work, organising and distributing the materials and giving the instructions took far longer than the execution of most activities and follow-up in teacher-directed large groups was found to be more effective in these conditions with this age group.

9.13 RESOURCES ALREADY AVAILABLE

It would seem obvious that resources already in use should be exploited fully. We neglected one resource, namely television and radio programmes, which turned out to take up time during the week. Although the programmes were largely self-contained, some of them did introduce the concepts and vocabulary with which we were also dealing. In retrospect it seemed a pity not to have taken advantage of this potential source of assistance. It might be difficult to knit together the content of these broadcasts and that of language sessions but, on the other hand,

with suitable planning their use as introduction or follow-up could ease the burden on the teacher.

9.14 MANPOWER

It became clear at an early stage that the presence of a second adult would be needed if the teacher were to implement the programme with these groups of children. Although not envisaged originally as a requirement of the programme (we had hoped to be able to implement it without extra resources) this development was not an unreasonable one for the following reasons:

(a) The children were of an average age of 4.2 years with a range from 4.0 to 4.4 years. In other circumstances, they would very possibly have been attending nursery schools or playgroups instead of infant school. The staff/children ratio in nursery school or playgroup establishment is by law higher than that in infant schools, yet the children are at the same developmental stage.

(b) The programme was intended for culturally disadvantaged children, who were not yet at the stage where they could work independently. As small-group work is more feasible where the other members of the class can work with minimal supervision, we consider that extra help should normally be needed only with this age group.

9.15 AVOIDANCE OF STALENESS

As the programme content and approach became more familiar, the teacher became aware of the problem of staleness, of losing spontaneity because of the frequency with which she had repeated the programme. But she continued to follow the sequence as laid down in the notes, so that the second experimental group would receive similar treatment in this respect to the first. When the experimental period was over and she started adapting the programme, she found that a system of alternating sessions within a unit was less monotonous for herself and she established a routine along the following lines:

	Group A	*Group B*	*Group C*	*Group D*
Monday	Session I	Session II	Session I	Session II
Tuesday	Session II	Session I	Session II	Session I
Wednesday	Session III	Session IV	Session III	Session IV
Thursday	Session IV	Session III	Session IV	Session III
Friday	..... 'catching-up'			

Obviously, the sequential element between individual sessions was less important when this kind of arrangement was followed. Some kind of flexibility should always be incorporated to ensure that, while each child follows the same programme, the teacher does not get bored by too much repetition.

10. CONCEPTUAL RETROSPECT

Some research findings concerning the implementation of educational innovations are presented, together with those characteristics, strategies and tactics of the programme which may have more general interest or application.

10.1 RELEVANCE OF STUDIES OF IMPLEMENTATION

While it is true that this monograph is not concerned with the formal measurement of implementation, it may be argued that a recognition of the literature is not inappropriate at this point. Such a consideration of the thinking of others, facing similar problems elsewhere, may serve to provide a context for our work. We propose, therefore, to mention some of the most relevant research findings on implementation and to comment briefly on the characteristics, strategies and tactics of the programme, concluding our discussion by consideration of some of the implications of our findings for 'small-scale' innovatory planning and practice.

The evaluation literature marshals much data to suggest serious difficulties in past efforts to bring about change in educational practices. Much of this work involves pressure for change which typically originates outside, rather than from within, the school and which has been described in terms of a centre-periphery model. Similarly, small-scale, situation-based innovations have most frequently conformed to a school-based model. Neither model can claim the greater immunity from failure or the greater assurance of success. In both, the assumption often appears to have been that the move from the drawing board to the schools or to the classrooms presented few problems and that concern should more properly be concentrated upon ensuring the adoption of the innovation and its diffusion throughout a particular organisational unit. The implementation phase, by which is meant the actual use of the innovation or what it may consist of in practice, began to receive attention only when new educational practices of apparent promise failed to become established and reasons for such outcomes were sought.

The atheoretical nature of most educational innovations makes it difficult to reach useful generalisations, although it is apparent that there are certain factors which influence the success or failure of an attempted innovation, regardless of its educational value. An excellent review of these is presented by Gross *et al.* (1971) and so only some selected aspects will be presented here. We may start by clarifying what is usually meant by the term 'educational innovation'. It has been argued (notably by Fullan and Pomfret 1977) and appears to be generally accepted (see, for example, Berman and McLaughlin 1974) that changes in the following may be involved:

(i) subject matter taught and materials used;
(ii) organisational arrangements;
(iii) roles and behaviours of both teachers and pupils.

In this discussion we will confine the term to situations in which all three are attempted.

There are serious definitional and methodological problems in determining whether an innovation has been implemented. Fullan and Pomfret (1977) provide a useful distinction between the two main orientations in such assessments, referring to the predominant approach as the study of the *fidelity* of implementation and the other as the study of *mutual adaptation* of implementation. The fidelity approach, as the name suggests, concerns an examination of the extent to which the employment of the innovation corresponds to the blueprint of the designers or even to the intention of the planners. The mutual adaptation approach involves analyses of how the innovation has been modified in the process of actual use. It has been employed in relatively few studies, although the outcomes of a number of fidelity studies have served to focus attention upon the importance of the process variables which this approach seeks to elucidate. Clearly, a conception of implementation which encompasses incrementally developed innovation and focuses upon measuring the impact of this attempted change is desirable in the context of this monograph.

10.2 CHARACTERISTICS OF THE LANGUAGE PROGRAMME

Some of the characteristics of the programme are necessarily unique while others are of more general interest. The latter include:

(a) the early establishment of an understanding of the essential features of the innovation, which was shared by all those actively involved;

(b) congruence between the new, necessary procedures and the teacher's normal classroom behaviours;

(c) recognition of the probable advantages of the innovation by all those actively involved;

(d) absence of major discrepancies between the teacher's self-image and previous professional experience and the demands of the new role.

Recent reports from the United States and from Britain indicate that these are necessary, although not sufficient, characteristics of successful implementation elsewhere (see, for example, those from the Rand Project by Berman, McLaughlin and others, 1974-75; those from the Safari Project by Macdonald, Elliott, Walker and others 1974-77; or Brown and McIntyre 1978, Fullan and Pomfret 1977, and Gross *et al.* 1971). These reports also agree that 'pedagogical' change is much more difficult to establish than 'organisational' change. They describe 'pedagogical' change as that which requires teachers to change their behaviours, lesson organisation or lesson contents within their own classroom domain. 'Organisational' change refers to that which necessitates redistribution of resources, structural reorganisation, temporal or spatial rearrangements. Thus, 'pedagogical' innovation concerns changes within professional practice while 'organisational' innovation involves changes in the conditions within which teaching is conducted. The strategies employed in the implementation process have been found to be a decisive factor in effecting modifications in professional practice (Berman *et al.* 1975).

10.3 STRATEGIES OF IMPLEMENTATION

In the implementation of the programme two strategies were employed. Our first was to ensure the full participation of the teacher at every stage of the implementation. This degree of involvement on the part of

the actual teacher is relatively rare. Fullan and Pomfret found only a small number of such studies when they reviewed the relevant literature in 1977, and only one in which teachers decided initially to undertake the implementation (Hestand 1973) as compared to accepting or volunteering support for a particular innovation proposed by others. It seems that teacher participation is usually confined to representative membership of curriculum committees rather than active involvement in the development process. In our case, as the programme met the expressed need of a particular teacher for such assistance, the resemblance of the initial stage seems to be closer to Hestand's study than to most of those in the literature. Fullan and Pomfret (1977) suggest that this introduction may be a relevant factor in assisting identification with a project or in facilitating awareness of what must be known or learned. They go on to conclude, as we did, that teacher participation which includes joint decision-making in substages of the implementation encourages effective and successful innovation.

Our second strategy was to incorporate feedback mechanisms in the implementation. As already described, this proved invaluable not only in the diagnosis of problems and in providing information on the children's reactions but also, as the programme developed, in ensuring that we were all aware of the return on our investment of time and effort. As research elsewhere has since demonstrated (Doyle and Ponder 1977), this aspect of feedback is especially important in establishing pedagogical changes. However, planned use of feedback mechanisms is widely thought to be an effective strategy (see, for example, Berman and Pauly 1975) in most forms of educational innovation and is considered to be particularly useful when they involve not only relevant structures but also norms which facilitate their accurate use (Fullan and Pomfret 1977).

10.4 TACTICS OF IMPLEMENTATION

The tactics which were featured in the implementation of the programme included the provision of resource support and of guidance in procedures. Resource support may be considered in terms of availability of time, materials and manpower. As the implementation progressed it was

realised that it was important for the teacher to have sufficient time to become familiar with new materials and methods, to reflect on and to work through the problems which arose and to cope with the normal exigencies of classroom routine. This resource need is frequently reported in the literature and has been emphasised by many other workers (see, for example, Hamingson 1973). Similarly, material provision which is adequate, relevant and suitable and the employment of an appropriate teacher-pupil ratio should hardly require restatement as tactical requirements of any innovation. Yet Gross *et al.* (1971) are only the first of a number of commentators to identify inadequate materials as a factor which contributed to the ineffectiveness of the implementation which they examined.

The remaining tactical aspect of the implementation which may be of general interest concerns procedural guidance. Our early conclusion that fairly detailed specification of procedures was required, and the provision thereafter of guidelines on a session by session basis, appeared to us all to make a major contribution to the effective use of the programme. This finding derives support from other workers, notably Doyle and Ponder (1977) who maintain that innovations must be expressed in terms of classroom contingencies, as the absence of procedural referents may introduce a substantial barrier to implementation.

10.5 IMPLICATIONS AND CONCLUSIONS

A number of premises were implicit in the initiation and development of the programme. It may be useful to conclude this retrospect by identifying those which were supported to some extent as the implementation progressed and which, therefore, may have implications for future 'small-scale' innovatory planning and practice. These were that:

- culturally disadvantaged children can benefit from a language programme;
- a school which holds a positive attitude to experimentation can support a small-scale, innovatory programme, given a limited amount of additional help;
- the autonomy of the individual teacher is a crucial factor which must be incorporated in any proposal for change;

- an incrementally developed innovation, capable of flexibility, constitutes an effective form of implementation;
- collaborative development, involving personal contact and the opportunity for joint decisions facilitates the achievement of a satisfactory programme;
- a small-scale intensive project, tailored to the specific requirements of a particular school, teacher and group of pupils represents an economical and effective form of compensatory, educational effort;
- the attitude and support of the school for the innovation, and the motivation of the participants are more influential factors than the level of financial expenditure or the provision of technical support.

11. SUMMARY

This project was initiated with the aims of:

- satisfying curiosity about the usefulness of an intervention programme in a Belfast school having some of the characteristics associated with the designation EPA;
- implementing intervention in a primary school in which the class teacher would be the principal agent in furthering the programme;
- examining the feasibility of employing inexpensive materials which could be found among, or devised from, those available in most primary schools.

Thus, our intention was to design a programme which, if successful, might provide useful guidelines for action elsewhere in the province.

Efficient and effective intervention programmes require thorough planning and careful monitoring based upon the systematic collection of relevant information. Planning, implementation and assessment are so closely tied to appropriate and effective teaching that it seemed sensible to ensure congruence from the outset by working within a common framework or theoretical strategy. In this way, it was hoped to avoid the difficulties in communication which may arise between teachers in the school situation and researchers with an interest in certain psychological aspects of child development. Communication barriers have emerged as an unfortunate concomitant of several American projects. In part these originate in differences between the conceptualisations of intervention accepted by the various contributors and the problem tends to be noticed only when theoretically appealing plans encounter practical difficulties in schools. It follows that this intervention programme was designed, modified and developed in continuous consultation with the teacher, so as to make maximum use of the teacher's own set of professional skills and experience.

This process was encouraged by (i) the expressed need of a primary school teacher for assistance and (ii) the willingness of the school con-

cerned to support innovatory techniques and to permit full evaluation for the assessment of their effectiveness.

This monograph describes the steps in devising the programme; its objectives, organisation, evaluations and subsequent modifications. The research design incorporated three control groups and the implementation of the modified programme with a 'new' group of children.

The problems affecting implementation are described, together with the efforts made to overcome them and the degree of success which attended these endeavours.

The effects of the intervention are examined in relation to the benefits derived by the children, the teacher and the school. A general discussion of the results and the success of the programme, in relation to the agreed aims, includes comments upon the ways in which these might be enhanced. This is followed by a short section providing general guidelines for teachers who might wish to initiate a similar programme, designed for a particular class or classes, and the monograph concludes with some comments upon the characteristics, strategies and tactics of implementing such an innovation.

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APPENDICES

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I INTRODUCTION

The appendices include extracts from the different versions of the language programme. They have been selected with the aims of:

- showing the changes which occurred from one version to another as the focus shifted from content towards method;
- indicating the kind of approach ultimately used and found helpful by the teacher.

THE PROGRAMME

This consisted of ten units, each involving a different theme. The themes as originally drawn up were:

the child;
the classroom;
shapes;
sounds;
clothes;
food;
fruit and vegetables;
the day's activities;
activities in school;
zoo animals.

These themes were those used for the first complete run-through of the programme (Version III). Some revisions were made for the final version (Version IV) when the order of presentation was also changed. It became:

the classroom;
the child;
shapes;
revision of the first three units;
clothes;
food;
fruit and vegetables;
revision of the previous three units as 'the day's activities';
activities in the classroom;
zoo animals.

The objectives drawn up for each unit included vocabulary and connected concepts. In Version I these were listed in detail and relevant activ-

ities were also suggested so that the teacher could select what she thought appropriate (see Appendix Ia, Ib, Ic).

In Version II (Appendix II) the objectives were listed more concisely without elaboration of details. Again suggestions were made of methods from which the teacher might choose.

In Version III, objectives were listed even more concisely (Appendix III). Version IV was similar to Version III.

Each unit was divided into five sessions and was administered during a school week. Each session was intended to last about fifteen minutes.

In Versions I and II the teacher selected from the total material and methods each day (see Appendices Ia, Ib, Ic and II).

In Versions III and IV, content and approach for each session were worked out in advance by teacher and researcher and were ready in typewritten form at the beginning of each week (see Appendices IV and V).

Each session was conducted with all the groups and the sessions were taken in the same order for all groups. Each group had a daily session with the teacher.

IA NOTES FOR VERSION I, UNIT I (THE CHILD)

This is a copy of notes for Version I of Unit I. The teacher could select content, methods and materials from those suggested, or she could use others and note them.

CHILD'S NAME

PARTS OF THE BODY

head - round, circle
hair - long, short

eyes	shoulders	waist - middle
nose	arms	tummy
forehead	wrist	chest
cheeks	elbow	legs
chin	fingers	ankles
ears	thumb	knees
mouth	nails	feet
neck, throat		toes - little, big
teeth, tongue		heels

ACTIONS CONNECTED WITH EACH PART

nod, shake head
brush, comb, wash hair
open, close, look, see, blink, wink eyes
raise eyebrows, wrinkle forehead
blow out, suck in cheeks
tuck in chin, stick out chin
waggle ears, hear with, listen with ears
open, close mouth, eat with it, talk through it, drink through it
teeth - chew, bite, brush, go to dentist and have filled

shrug shoulders, carry things on them, straighten them
raise arms, lower arms, lift things with them, make an O, put them up or down, out or in, in front, behind, lean on them
wrist and elbow like hinge on door
clench fingers, bend fingers in two places, hold things in hand, wave goodbye, clap, shake hands, write, paint, point, twist screws, turn pages
file nails, cut with scissors, scrub with nailbrush, scratch with them

bend at waist, backwards, forwards, sideways, measure around it
tummy - feels empty, full, had a pain
chest - breathe with it, expand it, listen to heart in it
legs - stretch them, bend them, walk, run, jump, hop, skip, crawl

ankles - like wrists, flap foot from them
feet - walk etc. on them, on tiptoes, on heels, backwards, forwards, quietly, noisily, quickly, slowly

CONCEPTS TO BE INTRODUCED IN CONJUNCTION WITH VOCABULARY

open, closed (eyes), mouth, hand, ears
long, short - hair, arms, legs, fingers, names written down
little, big - toes, head, body, nose
middle - waist, middle finger, middle of finger, middle child of five
one, two - one head, two eyes, ears, shoulders, legs, feet, hands, etc.
round, straight - head, fingers, arms, legs, eyes, ears
same - two eyes, fingers, ears, legs, feet, hands
first, last (list of names, drawing or colouring parts of body)
on, under, in, out (actions with limbs)

SUGGESTIONS FOR GAMES AND ACTIVITIES FOR VOCABULARY AND CONCEPTS OF UNIT I

Vocabulary:

Using a Gonk or similar creature, explain that this funny animal is visiting the class for a little while and wants to learn all about the boys in it. He has never seen real people before and thinks they look very funny. He would love to know what all the different bits of them are called and what they are for. Use a funny voice for the creature and ask the children what different bits are called - for example, A says 'This is a nose'; creature says to another child 'Do you have a nose too? Where is it? What is that thing called again?'

Carrying out one command:

Gonk could say: Show me your eye. Same for other parts of the body, and for functions. Cover eyes: Now can you see?

Miming actions:

Using the doll, demonstrate different actions while describing them. With pictures of different actions, ask what the people are doing, telling the children if they don't know. Mime actions for the class to guess what the teacher is doing. Then a member of class could be encouraged to mime actions on direction from teacher for the class to guess what he is doing.

Guessing games:

I've got a picture of something I can open and close (eye, mouth). I'm thinking of something I can see with; hear with; run with, etc. The teacher starts, and then encourages the children to take turns as leaders.

Visual memory:

Teacher points to, for example, own hair and then puts hand down. Children copy action. Teacher shown picture of person doing some action, then hides it. Children say what person was doing and imitate action in turn.

A collection of round things:

Children colour in circles and cut around them if they can. Names are put on them. Other round things in the room are named; pictures of other round things added to the collection, all labelled.

A collection of things with straight edges:

Boxes, coloured rectangles, etc.

A collection of ones:

One head, one nose.

A collection of two's:

Two eyes, two boys, two men, etc.

Stories:

David's Picture: Little Red Riding Hood: The Foot Book: The Eye Book: The Very First Story (My Naughty Little Sister): *I Can Read*

Rhymes:

About five fingers: five little peas: this little piggy went to market

Activities:

Draw around hand of each child. Help him to cut out the shape and when he has coloured it, write the name on it.
Select full-length figures from magazines. Cut these first into four pieces, for the children to assemble them; then cut up into more pieces.
Draw a rough outline of a human figure, full-length. Give the children directions so that they can colour in different parts, one after another, using the same or different colours.
Draw a large circle for each child and one on the blackboard. Fill in the features of a face.
Give the children practice in drawing circles - little ones, big ones.

IB OUTLINE FOR A TYPICAL SESSION

An outline suggested for a session of Version I, Unit I.

Active introduction of vocabulary - 'Today we are going to talk about ourselves'. Teach the names of objects and require the children to repeat them.

Play games appropriate to vocabulary building and introduce idea of 'first', 'next to' for parts of the body.

Emphasise a concept from the list supplied using material objects to establish comprehension. If all seems clear, use pictures.

Activity related to vocabulary and concept, for example, colouring in outline of figure or putting puzzle together, following instructions.

Tell a story on the theme of the vocabulary for the unit.

Revise vocabulary and introduce another set of concepts from the list for the unit.

IC SUGGESTED MATERIALS FOR VERSION I OF UNIT I

UNIT I - PARTS OF THE BODY

(i) PICTURES OF FACES

Use these for comprehension and expression of labels for different features of the face. Include:

eyes, eyebrows, lashes - upper and lower:
forehead - wrinkles, furrows;
cheeks - hollows;
nose - nostrils, shape of nose;
mouth - lips, upper and lower;
tongue;
chin.

Expressions on faces - happy, sad, etc.
What is person thinking about; what is he doing (supply ideas)
Is he going home to family, children, or going to a football match?

Give practice in labelling; in imagining roles, situations in a very simple elementary way with a lot of help at first.

(ii) PICTURES OF SMALL PEOPLE

Get children to point with a pencil to different parts of the body, named by teacher.

Get children to name parts of the body being pointed to by teacher and match the pointing on their own picture.

Suggestions for work on grouping with these pictures: children to do this under direction.

Find: one man — two men (i.e. two separate pictures of men)
one woman — two women
one girl — two girls
one boy — two boys
(each child could do this separately)

Find: people standing - count them (they are the same because all standing)
people moving - count them (they are the same because all moving)
people sitting down - count them (use the appropriate confirming sentence every time)
people with same colour hair
men with long hair
men with short hair
ladies with long hair
ladies with short hair

Show an example of what is needed and get each child to find one in turn from the pile on the table.

It may be possible to go on and for each child to give two pictures from different categories.

For example, to find one person moving and one boy; or find two people with long hair.

Use different tasks for each child.

Get child to tell you what he is giving you as he gives it.

This will give practice in:

- Concept of same and different as applied to:

  sex
  colour of hair
  length of hair
  age
  activity

- Number:

  rote counting
  counting to two
  one/one correspondence to two

- Naming of parts of the body
- Obeying one instruction
- Notion of sequence of actions

(iii) LARGE OR MEDIUM SIZED PICTURE OF ONE PERSON

Cut this into about six pieces so that there is one to give to each child and one for the teacher.

Tell the children: 'We are going to put all the pieces together on the board to make a man/woman. We will start at the top of the person. What part of you is at the top?'....'The head.'

Who has the head? Put it here (attach with magnet).

What comes next? (refer to own bodies) Who has it? Put it here.

What comes next? One arm, and then the other arm. How many arms do we have?

What comes next? One leg, and then the other leg. How many legs?

Use another picture of a person. Cut it into enough pieces to give each child two.

Proceed as above, getting child to name the bits he contributes.

A later extension could be for each child to have a picture cut into five; he would assemble it following instructions and then paste it into position on another piece of paper following instructions.

II TEACHER'S NOTES FOR VERSION II OF UNIT I (THE CHILD)

OBJECTIVES AT THE END OF WEEK 1

1. Able to label any part of the body pointed to by teacher on self.

2. Able to label any part of the body pointed to by teacher on a picture.

3. Able to tell one action connected with parts of the body named by teacher.

4. Able to tell which part of the body does certain actions (see, jump, etc.).

5. Number: able to count how many heads, eyes, ears, hands, he has and answer question 'How many....have you?' (not fingers or toes).

   Able to put people into groups of two; or find one of a kind.

   Able to recognise symbols for 1 and 2.

6. Able to describe hair, pencils, etc., as long or short; able to describe things as soft or hard.

7. Able to pick out own name from a group of five; able to find own name on coathook.

8. Able to say if own name is first in row;

   Able to place self and object first in a line;

   Able to place self and object next to something else named in a line;

   Able to name an object next to another object (e.g. part of the body).

SUGGESTIONS FOR TEACHING MATERIAL FOR UNIT I

Vocabulary - (a) Use Action Man; point to parts of the body, naming them. Get child to point to corresponding part of own body, and name it, and do action.

(b) Use pictures of people, get child to point to named part of the body. Get child to name part of body pointed to and perform action where necessary.

(c) For face, use pictures for naming various parts and functions.

Use plastic shapes of people doing various actions. Pick up one, standing, ask what he is doing and describe it if nobody knows. Get each child in turn to do the same action and say what he is doing.

Pick out one plastic shape and when action has been described, ask each child in turn to pick out another person doing the same thing. When he has found one, ask him what the person is doing.

Pictures of people - group them by actions.

Link actions with O'Grady game - one command at time.

Cut up one picture of a full length person. Each child gets a bit. Put them in order on magnetic board in correct positions naming them and emphasising first, next.

Do same for face of a person. Give the children a cut-up picture of a person or a face for them to paste together again, under direction.

Provide outlines of people; different coloured crayons. On instruction the children pick up one crayon, then another one and colour in different parts as indicated.

Each child is given a circle outlined. Fill in two eyes, nose and mouth.

Outline one child on a larger piece of paper (or one from each group). Whole group could colour him in. Put name on and hang him up and name parts.

Picking out one and then two of different things - pictures of men, women, girls and boys. Counting how many ears, eyes, hands, feet, legs, arms one has - people, pictures, Action Man.

Drawing two lines on a piece of paper. Holding up two fingers. Drawing around two hands, feet, etc.

Comparing length of hair, pencils, pieces of paper, bricks, pictures of people, trousers, socks - long, short.

Feeling parts of the body - cheeks, hair, head, arm, nose - soft, hard. Same for shoes, jumper, table - things within reach.

Write out names on separate slips of card and lay out in vertical groups of five as each group assembles. Point out whose name is first on the list and whose name is last. Tomorrow, they will be changed (change them to show and then change back). Perhaps put them up on a wall. Point out which one is next to which other one. Line up the boys in the same order and seat them in the same order.

Put copies of names on coathooks and help them to find their own names and match them up.

Other possibilities:

For quicker children. Guessing game - I'm thinking of something I can wave with; and other similar clues. Give children a turn if they guess right.
Then something I have only one of (head); something I have two of.

Assemble a cut up person incorrectly, first one element, then two wrong. Have it unscrambled.

III SAMPLE PAGE FOR VERSION III OF UNIT V (CLOTHES)

VOCABULARY, NEW CONCEPTS AND ITEMS FOR REVISION

Names of items of clothing - underpants, vest, trousers, jumper, socks, shoes, shirt, plus parts of them as brought into procedures.

What each of them is worn over.

What they are worn under.

What part of us they cover.

Why we need two socks, two shoes, two sleeves, two legs on trousers.

How different items fasten

Whether they are hard or soft.

If any of them stretch and why.

Round, rectangular.

Red.

Anyone absent for more than two days:

Particular notes about individuals:

Stories and rhymes used during the week:

Any other comments:

IV SESSION I FOR VERSION III OF UNIT VI (FOOD)

FOOD (I)

Day 1: Materials: white flour, brown flour, white bread, round brown bread, knife.
Have the brown bread cut in half, and one half in half again.

White bread: What is this? A loaf of bread....Tell me about it....What is it for?....Eating....Can I eat it just like that (pretend to take a bite)....What must I do first?....Cut it....What do I cut it with?....Why not with a spoon or a fork?..They are not sharp, they haven't got a blade....What do I do after I've cut it?....Do I put something on it?....What do I put on it?....Butter, margarine, jam, (Marmite?), anything else?....How does the bread feel?....Soft on the inside, hard on the outside.

Sum up: So if I want to have a piece of bread, I first do what?....Then what do I do? (different child)....Then what do I do?.What else could I put on it?....What do I use to spread the butter/margarine/jam?....Now I am going to cut a slice and I want you to tell me what to do next (go around in different order and do as they say)....How many of you would like a piece of this slice?....So how many pieces must I cut it into? (cut it into two halves)....Now I've cut it in half....How many pieces is that?....Is it enough? (cut it into the right number of pieces).

How does the butter feel?....Greasy, slippery....How does the jam feel?....sticky.

Look at this brown bread....Which flour is it made of?....What shape is it?....I'm going to cut it in half and we'll see if it is still the same shape....How many halves?....Are they the same as each other?....Are they round? (have something else round to remind them of the shape)....No they are now semi-circles, but if we put them together again we will have a round shape again....Now it is whole, but if I take away a piece it is not whole.

Read: Little Red Hen.

V SESSION I FOR VERSION IV OF UNIT VI (FOOD)

Day 1: White bread, brown bread, a knife, some white flour, a little water.

What is this - a loaf of bread....Tell me about it....What is it for?....Can I eat it just like that? (pretend to take a bite)....What must I do first?....Cut it....What do I cut it with?....Why not with a spoon or fork?....They are not sharp, they haven't got blades....What do I do with it after I cut it?....Do I put something on it?....What could I put on it.. butter, margarine, jam, Marmite....anything else?

How does the bread feel?....Is any part of it hard?....The outside, or it's called the crust....Is any part of it soft?. the inside.

The flour: What is this stuff?....What colour is it?....What does it feel like? (let them feel it with their fingers)....What is it for?....Does anyone know how we make bread with flour?.... We add water to it....Does it feel dry now, or does it feel sticky?....Then we put it in the oven....Has anyone seen their mummy make bread or anything else with flour?....What else can you make with flour?....cakes, buns, biscuits.

Sum up: So if I want to eat some bread, what must I do?....Then what? (give clues to enable the children to answer the questions).. What do I use to cut it with?....What do I put on it?....What do I use to spread it?....etc.

VI LESSON TRANSCRIPT

This appendix contains part of a transcript taken from a tape-recording of the same programme session repeated with three different groups of children. The section presented here concerns two-thirds of the session experienced by one group and rather more of each of the two fifteen-minute periods spent with the other groups.

We hope that this transcript will convey something of the flavour of the situation and more particularly will illustrate:

1. concentration upon the sequencing of events;
2. use of adverbs
3. integration and extension of the children's contributions;
4. references to previous sessions;
5. encouragement by praise, use of names, repetition of questions and the frequent, invited involvement of each child.

Unfortunately, the responsive warmth of the milieu may not be fully apparent from the transcript, as for young children this derives partly from tones of voice and attitudes conveyed non-verbally. As much research testifies (e.g. Beller 1973) the nature of the social-emotional climate created by the teacher is of central importance to the success of such endeavours with disadvantaged children.

GROUP 1

T.* I'm going to say some words. Every time you hear me say something you wear clap your hands. Right? We'll practice first.

T. Table. Do you wear a table?

B. No.

T. Chair?

B. No.

T. Socks?

B. Yes

T. So what do you do when you hear "socks"?

B. Clap your hands.

T. Good boy! Clap your hands. Yes. (Sound of hands clapping.)

T. Now, we'll play that game again. Ready? I'm going to say some words. Stephen, when you hear me say a word that means something that you wear, you're to clap your hands.

T. Table?

B. No.

T. Door?

B. No.

T. Shoes?

B. Yes.

T. So what do you do? Clap your hands. (All clap.)

T. Now we'll do another one. (Clapping) No. Listen to the words first.

T. Book?

B. No.

T. Pencil?

B. No.

T. Jumper?

B. Yes.

* T. = Teacher. B. = Boy.

T. Do you wear a jumper?

B. Yes.

T. So what do you do?

B. Clap your hands.

T. Clap your hands. Now, one clap will do. We'll try again.

T. Milk?

B. No.

T. Bread?

B. No.

T. Vest?

B. Yes.

T. So, you heard me say vest. So, what do you do then. You clap your hands.

PAUSE

T. Now, let's think about the days of the week again. We talked yesterday about.... What day was it yesterday? Yesterday was Tuesday.

B. Tuesday.

T. Do you know what day it is today? Stephen?

B. Tuesday.

T. No, yesterday was Tuesday. Today is Wednesday. And now, this morning is Wednesday morning. What did you do when you got out of bed? What was the first thing you did? Noel?

B. ....

T. What did you do first when you got out of bed? Well Stephen?

B. (Reply inaudible).

T. You had your pyjamas on, hadn't you? So what had you to do with them?

B. Put them off.

T. Put them off. What did you put on?

B. Jersey and my socks and my vest and my trousers.

T. Did you put on your jersey first?

B. Yes.

T. Did you? What did you put on first, Noel?

B. Jumper.

T. You put your jumper on first. Patrick, what did you put on first this morning?

B. (inaudible).

T. Patrick, what did you put on?

B. Trunks.

T. You put on your trunks first. Then what did you do? What did you put on next?

B. Trousers.

T. Yes and what did you put on after that?

B. Jumper.

B. Vest.

T. Your vest and what did you put on after that?

B. Jumper.

T. Your jumper. And then what did you put on, Liam?

B. Trousers.

T. Trousers. Then what did you put on after your trousers?

B. Tops.

T. Tops, yes. And then?

B. Trunks.

T. But you had your trousers on. Did you put your trunks on top of your trousers?

B. No.

T. What did you put on first?

B. Trunks.

T. Yes and then after you had your trunks on what did you put on?

B. Trousers.

T. Yes and then what did you put on?

B. Jumper and vest.

T. Your jumper and then your vest? Which did you put on first?

B. Vest.

T. Your vest. And what did you put on top of your vest?

B. Jumper.

T. Right. And then you were dressed. And what did you do then, Stephen? Did you come downstairs?

B. I had my breakfast.

T. And what did you have? Did you have anything to eat? What did you have?

B. Egg.

T. You had your breakfast, hadn't you?

B. I had egg.

T. You had egg, yes. And what else?

B2 And I got an egg.

T. You got egg as well? Where does the egg come from, Stephen?

B. Chicken.

T. Was it just egg you had? Did you have toast?

B. Yes.

T. And what did you put on the toast?

B. Butter.

T. Mmmm. And where does the butter come from?

B. The shop.

T. Yes, but do you remember we learnt where it came from. It came from....? It's made from....?

B. Milk.

T. Yes. It's made from milk. And what did you have then? What did you drink?

B. Milk.

T. A drink of milk. You had a lovely breakfast! And what did you have, Noel?

B. Sausages and egg.

T. Very nice. And what did you have for breakfast, Patrick?

B. Tea.

T. Just tea? Did you have anything to eat? Did you not eat anything?

B. I had tea as well.

T. Oh you had tea as well, Liam?

B. Hey! I got turnip.

T. Oh, I don't think you had turnip this morning, had you? For your breakfast? And what about you, Liam? What else did you have?

B. Sausages and chips.

T. Oh, you had chips for your breakfast?

B. Tea.

T. You had tea. And what did you put in the tea?

B. In a cup.

T. You had it in a cup, but what did you put in the tea? What did your Mammy pour into the tea?

B. (inaudible).

T. To make it a different colour?

B. Yes.

B. Brown.

T. What does she pour into the tea? Was your tea black?

B. No.

B. Mine wasn't black.

T. Well and what did your Mammy pour into the tea?

B. Bread.

T. You don't have bread in your tea. What do you have in your tea? Milk. Milk, don't you?

B. And sugar.

T. And you had sugar? That was very nice.

B. You put sugar and milk.

T. You had sugar and then you had....?

Bs Milk.

T. Yes. Where does the milk come from, Patrick?

B. Farm.

T. The farm, yes. And what animal do we get it from, Liam? What animal on the farm gives us the milk?

B. Cow.

T. The cow, yes. Don't you remember the story we had about the cow?

Bs The cow.

T. And the picture?

T. Now you can go and do your drawing.

GROUP 2

T. Do you remember the little boy in the story? What did he do?

B. He planted seeds.

T. Yes, he did. He planted seeds. What kind of seeds did he plant?

B. Black.

T. What was he going to grow?

Bs Black. Black. He planted seeds.

T. Yes, but what was he going to grow out of his seeds?

B. Carrot.

T. That's it! Good boy! A carrot.

T. Now we put stones in the bottom part first of all. That's where they should be. Stones. Now, we put the soil on the top. Soil. Straight down there out of the way. Now every day the little boy had to do something. What did he do? He went out with what?

B. Stones.

T. He didn't. He....

B2 Water.

T. That's right, Liam. He got water. Here it is and he watered. We have to water the soil to see that it's nice and moist. Now, here are our seeds. The seeds are in the packet. Now we're not going to grow carrots. We're going to grow - does anyone know what that is?

B. Carrots.

B2 Cabbage.

T. It's not cabbage. Look at it! That's cress.

Bs Cress.

T. Have you ever tasted cress?

Bs No.

T. No? Well, we'll be able to.

B. I did.

T. When did you taste it, Peter?

B. At the dinners.

T. You had it at the dinners? Well, we'll all be able to have some when the seeds grow. Now, I'm going to give everyone a little seed and he's going to plant it in here. One for you, one for Harry, Stephen and Thomas. Now put your seed in there. Kieran didn't get any? Liam has to get some.

B. Could I have a bit more?

T. And Peter. Now, plant your seeds. That's right. Did you put yours in, Liam?

B. Yes.

T. Are all the seeds in now? There they are.

B. I put them all in.

T. And now we'll put them over on the table beside the carrot seed and wait for them to grow.

B. Let me bring them.

B2 No, I want to bring them.

B3 I want to bring them.

T. Well, you can carry them over very carefully, Thomas. Right! Over to the table where the carrots are.

PAUSE

T. Good. Now we're giong to play a game today. I'm going to tell you three things. You're going to listen. I'm going to say words like 'table' or 'chair' and then I'm going to say a word that you wear, something you wear like 'socks'.

Bs Socks.

T. And when you hear me say something you wear, you have to clap your hands. Like that. Are you ready? You've to listen very carefully for the one you wear. And when I say the word you wear, something you wear, you clap your hands.

B. Clap, clap.

T. Book. Why did you clap your hands, Thomas? You don't wear a book, do you? No you don't. Did you put on a book this morning when you were getting dressed?

B. No.

T. No. Now listen again. Pen. Pencil. Jumper (vigorous clapping).

T. Just one clap. That's good. We'll play again. Orange (claps) - Do you wear oranges.

Bs No.

T. We'll try again. Apples. Banana. Jumper (vigorous claps).

T. Yes. You clap your hands because you wear a jumper. We'll give everyone a turn. Joseph. We'll try with Joseph. Joseph has to listen very carefully. Book. Pen. Socks. Good bov. Now, Harry's going to try. Bacon. Do you clap your hands at bacon?

B. No.

T. Because you don't wear bacon. Would you wear bacon? What would you do with bacon, Harry? (laughing from children).

Bs. Eat it.

T. You eat becon, don't you Kieran? You don't wear bacon. We'll try again. Eggs. Milk. Shirt. That's right. You clap at 'shirt' because you wear a shirt. Stephen's turn. Schoolbag. Yes....well you put your schoolbag on, so I suppose you do wear it but you don't wear it all the time.

B. You don't wear it at the bed.

T. No, you don't wear your jumper or your shoes in bed either.

B. You wear your jamas.

T. Ready to listen, Thomas? Biscuits. Milk - no. You don't wear milk. Are you listening carefully?

B. You do wear it.

T. No, you don't wear it. We'll try this one again. Biscuits. Apple. Trousers. You clap at....? Trousers, because you wear trousers.

PAUSE

T. What day is today, Colm?

Bs Monday.

T. You think it's Monday, Peter? No it's not Monday. Do you know what day it is, Liam?

Bs Friday. Tuesday. Tuesday. Friday. Monday.

T. No. Joseph, what day is it?

B. Tuesday.

T. No yesterday was Tuesday.

Bs Monday. Tuesday.

T. The day before Tuesday was Monday. This is....I'll have to tell you.

B. Friday.

T. No. It's Wednesday. Wednesday.

Bs Wednesday.

T. That's the day. Wednesday. Tomorrow will be....?

Bs Thursday.

T. Yes. Thursday. So now we've had.... All together. Monday. Tuesday. Wednesday. Who could say those three days?

T+Bs Monday. Tuesday. Wednesday.

T. You say them for me please, Stephen. Stephen will....

B. Monday. Tuesday. Wednesday.

T. Harry, can you say them. Monday.

B. Tuesday.

T. Let Harry say them by himself. No? Can Joseph say the three?

(inaudible)

T. Yes. Peter, can you say them?

B. Monday. Tuesday. Friday.

T. What comes after Tuesday, Peter?

B. Wednesday.

T. Kieran, can you say them?

B. Wednesday. Tuesday.

T. No. What do we start with? We start with....?

Bs Monday. Tuesday.

T. We start with Monday first. Now let Kieran say them.

B. Monday. Tuesday.

T. What's after Tuesday?

B. Friday.

T. Wednesday. Wednesday comes after Tuesday. Liam, can you say them? Monday....

B. Tuesday.

T. What comes after Tuesday, the day it is today? Who remembers what day it is today?

Bs Tuesday. Monday.

T. No, this is Wednesday. What day is it Harry?

B. Wednesday.

T. Yes. What day is it now, Liam?

B. Wednesday.

T. That's right.

Bs Thursday. Tuesday. Wednesday. Friday. Saturday.

T. It is Wednesday.

PAUSE

T. When you got up this morning, after you were dressed what did you do, Thomas? You came down and you had your....?

B. Breakfast.

T. What did you have for your breakfast?

B. (hesitant noises)

T. Did you not have any breakfast? Stephen, what did you have for your breakfast?

B. Beans. Peas.

T. Peas? What did you have, Harry?

B. Cornflakes.

T. Cornflakes, yes. And what did you put on the cornflakes?

B. Milk.

T. Yes, milk. And what else?

B. Milk and sugar.

T. Where does milk come from, Harry?

B. Cow.

T. Mmmm. Joseph, what did you have for breakfast?

(inaudible)

T. Mmmm. What did you have, Peter?

B. I had cornflakes.

T. And what did you put on the cornflakes?

B. Cheese.

B. Milk.

T. Yes. What colour is milk?

B. It's cheese.

B. It's white.

T. Good boy. Yes. What else is white? Peter can you tell me what colour is my jumper?

B. White.

T. Yes. Kieran, what did you have for your breakfast?

B. Cornflakes.

T. Peter, what did you have?

B. Cornflakes.

T. And Liam, what did you have?

B. Porridge.

T. Yes, and what did you put on the porridge?

B. Sugar and milk.

T. Where does the milk come from?

B. Comes from a cow.

GROUP 3

T. Who planted seeds one day?

Bs Me

T. There was a boy I told you about. You remember you heard a story about a boy?

B. Yes.

T. Who?

B. ....and it growed.

T. What did he plant, Francis, then?

B. Seeds. Carrots. Seeds.

T. Yes, but what kind of seeds? What was going to grow from his seeds?

Bs A carrot. Carrot?

T. Yes and did they grow?

B. Yes.

T. What colour are carrots, Barry?

B. Em.

T. Orange colour, aren't they? What do you do with them?

B. Eat them.

T. You do, Colm. You eat carrots. Now when you're going to plant seeds, you've got to water them because they won't grow unless they have water. So we'll water the soil. That's the soil we put in first. And water. I haven't got what the little boy had. What had he got for watering?

B. Carrots.

T. No. he had a special can.

B. A watering can.

T. That's right. He had a watering can. I just have my big jug. Inside here I've got seeds. What kinds of seeds are they?

(Indistinguishable)

T. Yes, they're going to grow into that. What is it?

B. Carrots.

T. No, it's not carrots. It's cress. What colour is that? Francis, do you know what colour it is?

B. Green.

T. Yes, it's green. Now I'm going to give everybody some seeds and we're going to plant them. Some for Colm, some for Raymond, some for Brendan some for Francis, some for Barry and some for Danny. Now you've to put your little seeds. Just drop them in there like that, in on top of the soil. Have you got them all in? I think some seeds have fallen on the table. Could you pick them up?

B. Yes.

T. That's right. Now I'm going to put the number of our group on the front of the box so that we'll know whose seeds they are and then every morning we're going to look at them and see if they're growing just like the little boy did. What number is our group, Francis?

B. Three.

T. Yes, three. I'm going to make a number 3. Look, a number....

All Three.

T. There we are. Look.

All Three.

T. Now, could you carry that over very carefully, Barry, put it on the table and don't let number 3 fall out because we want to know that it's our box.

PAUSE

T. Now we're going to play a game today. I'm going to say some words and every time I name something you wear, you're going to clap your hands just like this. (Clap). (Much clapping). No, not like that. Listen to me clapping. Just like that. One clap. That's right. That will do. That will do, Barry. Now listen carefully for the words of things you wear. For the names of things you wear. Ice-cream. You don't wear ice-cream, Colm. What do you do with ice-cream?

B. Eat it.

T. So you don't clap your hands when I say 'ice-cream'. Listen again. Jam.

B. Eat it.

T. Butter.

B. Eat it.

T. Socks.

Bs Put on them. Put on them.

T. So what should you do? You should clap your hands when you hear me say the word 'socks'. Listen again. You must listen very carefully for the words, the names of things you wear. Cheese.

B. No.

T. You don't need to say 'no'. Listen. Sweets.

B. Sweets.

T. Shoes. Good boy, Raymond. He clapped his hands. I'll give everybody a turn. Barry's turn. We're going to listen. Nobody claps but Barry. Only Barry. Pen. Pencil. Socks. Good. Danny's turn. Apples. Chair. Vest. What are you clapping for? Which one do you wear?

B. Vest.

T. Vest. Right. Now you're not to clap, Barry. It was Danny's turn. Now it's Francis' turn.

T. Eggs Shirt. Banana. Do you wear bananas? Where do you wear bananas?

B. You eat them.

T. You eat them, Colm, so he shouldn't have clapped when I said 'bananas'. We'll try Raymond. Pencil. Paint. Hat.

B. You wear one.

T. So you clap your hands. Good boys. Trunks. Good. Paper. No, you don't wear paper. Floor. Right.

PAUSE

T. Now we're going to play another game. We're going to think about the days of the week again. Do you remember? Does anyone know what day it is today?

Bs Tuesday. Tuesday.

T. No, yesterday was Tuesday and Tuesday ended ...when did Tuesday end? When you went to bed last night. That was the end of Tuesday.

B. Wednesday.

T. Good boy, Colm. Colm says this is Wednesday. This is a new day. When you got up this morning what day was it Barry?

B. Wednesday.

T. Wednesday. So now we've learnt Monday and Tuesday, and after Tuesday comes....?

B. Wednesday.

T. I wonder who can say them by himself. You try, Francis.

B. Monday. Wednesday. Tuesday.

T. Yes, but Monday is first, then Tuesday, then Wednesday. Danny, you try. What's first?

B. Monday.

T. Monday and then....?

B. Tuesday.

T. And then....?

B. Friday.

T. No, what day is it today?

Bs Wednesday.

T. Wednesday. You try them, Brendan. What do we start with?

B. Monday.

T. And then?

B. Tuesday.

T. And then?

B. Wednesday.

T. Right. Barry can you name the days? What came first?

B. Tuesday.

T. No, what was the first one we learned?

B. Wednesday.

T. We learnt Monday. Then what came, Barry?

B. Tuesday.

T. And then?

B. Wednesday.

T. Wednesday. Now try it again, Barry. Say them again for me.

B. Monday. Tuesday. Wednesday.

(Interruptions)

T. Right now, Colm. You say them.

B. Monday. Tuesday. Wednesday.

T. Colm's a very good boy. He was the best at them. Can you say them, Raymond?

B. Monday. Tuesday.

T. What comes after Monday, Tuesday, Raymond? What day is it today?

B. Wednesday.

T. Colm's telling you. It's Wednesday, today. I'm going to change my calender. I've got to take out this one, see? What day was that?

Bs Tuesday.

T. Yes, and put in the new day. This is it, Wednesday. What day is it today?

Bs Wednesday.

PAUSE

T. Now what did you do in the morning when you got up? What did you do first, Raymond?

B. Got my breakfast.

T. Oh, but before you ate your breakfast, what were you wearing?

B. I put on my clothes.

T. You put on your clothes. Now what did you put on first?

B. My trunks.

T. Yes and did you take off something before you put on your trunks?

B. Yes, my jamies.

T. Yes, you took off your pyjamas and you put on your....?

Bs Trunks. Jumper.

T. Right. What did you put on next, Colm?

B. I put on my trunks.

T. Yes and after your trunks what did you put on?

B. My jumper.

T. Your jumper, did you? And is that what you've got on under your jumper? Just your ....?

B. Vest.

T. Oh yes, you forgot about it didn't you? So what did you put on first?

B. Vest.

T. Your vest, and then, Barry, what did you put on? Which did you put on first?

B. Vest.

T. Your vest and after that?

B. Jumper.

T. Your jumper and after that?

B. Trousers.

T. Did you? Did you not put anything on under your trousers?

B. Yes.

T. What?

B. Underpants.

T. Well, you must put them on before your trousers, and then you put your trousers. What did you put next?

B. Socks.

T. He put on his socks next. And then, Danny, what did he put on?

B. My shirt and my jumper and....

T. Yes. Francis what about you telling me everything you put on?

B. I put on my trousers and I put my pants on.

T. Yes, well which did you put on first?

B. Trousers.

T. Did you put your trousers on first, and then did you put your pants on top of your trousers?

B. I can't put my pants on.

T. Oh did you not put any pants on? Are you not wearing your pants today?

B. Yes.

T. Yes, well when did you put them on? Did Mammy help you with them?

B. Yes.

T. You put your pants on first then?

(Interruption)

T. And then what did you put on top?

B. Vest.

T. You put your vest on, did you?

B. You put your vest on behind your shirt?

T. And what did you put? Yes, your vest is under your shirt, isn't it? Your put your....

B. I've got a shirt on me.

T. Yes, there's your vest and there's your shirt. And what did you put over your shirt?

B. My vest.

T. Yes, you put your shirt over your vest, and what did you put over your shirt?

B. My jumper.

T. Yes and what about your feet?

B. Shoes and socks.

T. Which did you put on first?

B. Socks.

T. And then your....?

Bs Socks.

T. Yes. Tell me how you dressed yourself, Brendan?

(Interruptions)

T. What did you put on first?

B. My vest.

T. And then?

B. Jumper.

T. And then?

B. My vest.

T. You put your vest on after your jumper, did you? I can't see it. It should be on top of your jumper. It's underneath. So you must have put your vest on first. It's next to your....? What is your vest next to?

B. Jumper.

T. Your skin.

Bs Skin.

T. And what happened then. What did you put on next?

B. (Inaudible)

T. Yes and then you came downstairs, Raymond, and what did you get to eat?

Bs Cornflakes.

T. What meal had you to have? Was it your dinner you got?

B. No, my breakfast.

T. Your breakfast. What did you have?

Bs Cornflakes. Tea and toast.

T. And what did you put on the toast?

B. Butter.

T. And where does the butter come from?

(Interruption.)

T. Raymond's going to tell me, Colm. Where does the butter come from?

B. The milkman makes it.

T. Yes, from the milk. It's made in the creamery. What did <u>you</u> have for breakfast?

B. Cake. Tea. Bread.

T. And did you have toast as well? Bread? And what about Barry?

B. (Inaudible).

T. You had a wonderful breakfast, didn't you? Eggs. Fried eggs?

B. Bacon.

T. Where do we get eggs from?

Bs Well, chickens.

T. Yes. Brendan, what did you have for your breakfast?

B. Cornflakes and porridge.

T. Both cornflakes and porridge? I don't think you had the two things. Which did you take?

B. Cornflakes.

T. And what about Francis?

B. I took cheesecakes and a cup of tea.

T. Cheesecakes? And what about Brendan?

B. I had eggs.

T. Eggs as well as bacon?

B. Yes and tea and cakes.

T. Pancakes?

B. Yes.

T. Did Mammy make the pancakes?

B. Yes.

B2 My Mammy does make pancakes.

T. Do you like them.

B. No.

T. You don't like them. Well, what do you put on pancakes, Brendan?

B. (Inaudible).

T. Butter? Where does butter come from, Danny?

B. Creamery.

T. That's right, Francis.

T. Yes. We can go and tidy up now.